

GREEN'S FRUIT GROWER



A MAGAZINE
WITH A MISSION

DECEMBER, 1913

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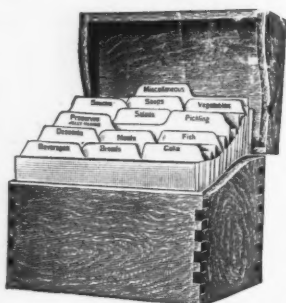
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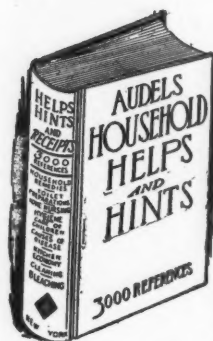
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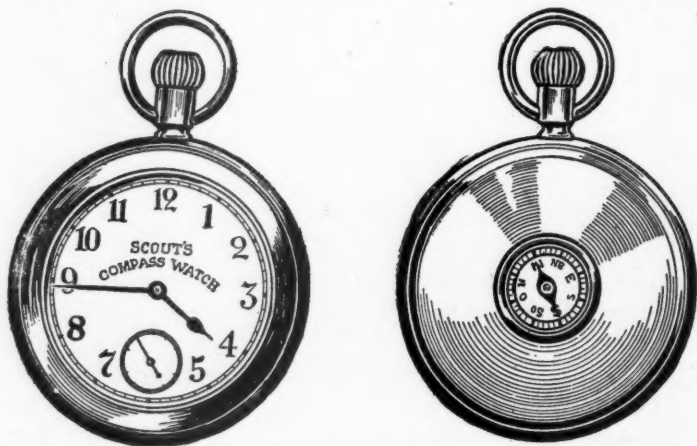
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GREEN'S FRUIT GROWER

A Monthly Magazine for the Fruit Growing Farmer and His Family

CHARLES A. GREEN, Editor

Volume 33

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Number 12

Santa Claus and Little Billee

By John Kendrick Bangs

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He was only a little bit of a chap, and so, when for the first time in his life he came into close contact with the endless current of human things, it was as hard for him to "stay put" as for some wayward little atom of flotsam and jetsam to keep from tossing about in the surging tides of the sea.

His mother had left him there in the big toy-shop, with instructions not to move until she came back, while she went off to do some mysterious errand. She thought, no doubt, that with so many beautiful things on every side to delight his eye and hold his attention, strict obedience to her commands would not be hard. But, alas, the good lady reckoned not upon the magnetic power of attraction of all those lovely objects in detail. She saw them only as a mass of wonders which, in all probability, would so dazzle his vision as to leave him incapable of movement; but Little Billee was not so indifferent as all that.

When a phonograph at the other end of the shop began to rattle off melodious tunes and funny jokes, in spite of the instructions he had received, off he pattered as fast as his little legs would carry him to investigate. After that, forgetful of everything else, finding himself caught in the constantly moving stream of Christmas shoppers, he was borne along in the resistless current until he found himself at last out upon the street—alone, free, and independent.

It was great fun, at first. By and by, however, the afternoon waned; the sun, as if anxious to hurry along the dawn of Christmas Day, sank early to bed; and the electric lights along the darkening highway began to pop out here and there, like so many merry stars come down to earth to celebrate the gladdest time of all the year. Little Billee began to grow tired; and then he thought of his mama, and tried to find the shop where he had promised to remain quiet until her return. Up and down the street he wandered until his little legs grew weary; but there was no sign of the shop nor of the beloved face he was seeking.

Once again, and yet once again after that, did the little fellow traverse that crowded highway, his tears getting harder and harder to keep back, and then—joy of joys—whom should he see walking slowly along the sidewalk but Santa Claus himself! The saint was strangely decorated with two queer-looking boards, with big red letters on them, hung over his back and chest; but there was still that same kindly, gray-bearded face, the red cloak with the fur trimmings, and the same dear old cap that the children's friend had always worn in the pictures of him that Little Billee had seen.

With a glad cry of happiness, Little Billee ran to meet the old fellow, and put his hand gently into that of the saint. He thought it very strange that Santa Claus's hand should be so red and cold and rough, and so chapped; but he was not in any mood to be critical. He had been face to face with a very disagreeable situation. Then, when things had seemed blackest to him, everything had come right again; and he was too glad to take more than passing notice of anything strange and odd.

Santa Claus, of course, would recognize him at once, and would know just how to take him back to his mama at home—wherever that might be. Little Billee had never thought to inquire just where home was. All he knew was that it was a big gray stone house on a long street somewhere, with a tall iron railing in front of it, not far from the park.

"Howdido, Mr. Santa Claus?" said Little Billee, as the other's hand unconsciously tightened over his own.

"Why, howdido, kiddie?" replied the old fellow, glancing down at his new-found friend, with surprise gleaming from his deep-set eyes. "Where did you drop from?"

"Oh, I'm out," said Little Billee bravely. "My mama left me a little while ago while she went off about something, and I guess I got lost."

"Very likely," returned the old saint with a smile. "Little two-by-four fellers are apt to get lost when they start in on their own hook, specially days like these, with such crowds hustlin' around."

"But it's all right now," suggested Little Billee hopefully. "I'm found again, ain't I?"

"Oh, yes, indeedy, you're found, all right, kiddie," Santa Claus agreed. "And pretty soon you'll take me home again, won't you?" said the child.

"Surest thing you know!" answered Santa Claus, looking down upon the bright, but tired little face with a comforting smile. "What might your address be?"

"My what?" asked Little Billee.

"Your address," repeated Santa Claus.

"Where do you live?"

The answer was a ringing peal of childish laughter.

"As if you didn't know that!" cried Little Billee, giggling.

"Ha, ha!" laughed Santa Claus. "Can't fool you, can I? It would be funny if, after keeping an eye on you all these years since you was a baby, I didn't know where you lived, eh?"

"Awful funny," agreed Little Billee. "But tell me, Mr. Santa Claus, what sort of a boy do you think I have been?" he added with a shade of anxiety in his voice.

"Pretty good—pretty good," Santa Claus answered, turning in his steps and walking back again along the path he had just traveled—which Little Billee thought was rather a strange thing to do. "You've got more white marks than black

ones—a good many more—a hundred and fifty times as many, kiddie. Fact is, you're all right—way up among the good boys; though once or twice last summer, you know—"

"Yes, I know," said Little Billee meekly, "but I didn't mean to be naughty."

"That's just what I said to the book-keeper," said Santa Claus, "and so we gave you a gray mark—half white and half black—that doesn't count either way, for or against you."

"Thank you, sir," said Little Billee, much comforted.

"Don't mention it; you are very welcome, kiddie," said Santa Claus, giving the youngster's hand a gentle squeeze.

"Why do you call me 'kiddie' when you know my name is Little Billee?" asked the boy.

"Oh, that's what I call all good boys," explained Santa Claus. "You see, we divide them up into two kinds—the good boys and the naughty boys—and the good boys we call kiddies, and the naughty boys we call caddies, and there you are."

Just then Little Billee noticed for the first time the square boards that Santa Claus was wearing.

"What are you wearing those boards for, Mr. Santa Claus?" he asked.

If the lad had looked closely enough, he would have seen a very unhappy look come into the old man's face; but there was nothing of it in his answer.

"Oh, those are my new-fangled back-and-chest protectors, my lad," he replied. "Sometimes we have bitter winds blowing at Christmas, and I have to be ready for them. It wouldn't do for Santa Claus to come down with the sneezes at Christmas time, you know—no, sir! The board in front keeps the wind off my chest, and the one behind keeps me from getting rheumatism in my back. They are a great protection against the weather."

"I'll have to tell my papa about them," said Little Billee, much impressed by the simplicity of this arrangement. "We have a glass board on the front of our

portymobile to keep the wind off Henry—he's our shuffler—but papa wears a fur coat, and sometimes he says the wind goes right through that. He'll be glad to know about these boards."

"I shouldn't wonder," smiled Santa Claus. "They aren't very becoming, but they are mighty useful. You might save up your pennies and give your papa a pair like 'em for his next Christmas."

Santa Claus laughed as he spoke; but there was a catch in his voice which Little Billee was too young to notice.

"You've got letters printed there," said the boy, peering around in front of his companion. "What do they spell? You know I haven't learned to read yet."

"And why should you know how to read at your age?" said Santa Claus. "You're not more than—"

"Five last month," said Little Billee proudly. "It was such a great age!"

"My, as old as that?" cried Santa Claus. "Well, you are growing fast! Why, it don't seem more than yesterday that you was a pink-cheeked baby, and here you are big enough to be out alone! That's more than my little boy is able to do."

Santa Claus shivered slightly, and Little Billee was surprised to see a tear glistening in his eye.

"Why, have you got a little boy?" he asked.

"Yes, Little Billee," said the saint. "A poor white-faced little chap, about a year older than you, who—well, never mind, kiddie—he's a kiddie, too—let's talk about something else, or I'll have icicles in my eyes."

"You didn't tell me what those letters on the boards spell," said Little Billee.

"Merry Christmas to Everybody!" said Santa Claus. "I have the words printed there so that everybody can see them; and if I miss wishing anybody a merry Christmas he'll know I meant it just the same."

"You're awful kind, aren't you?" said Little Billee, squeezing his friend's hand affectionately. "It must make you very happy to be able to be so kind to everybody!"

Santa Claus made no reply to this remark, beyond giving a very deep sigh, which Little Billee chose to believe was evidence of a great inward content. They walked on now in silence, for Little Billee was beginning to feel almost too tired to talk, and Santa Claus seemed to be thinking of something else. Finally, however, the little fellow spoke.

"I guess I'd like to go home now, Mr. Santa Claus," he said. "I'm tired, and I'm afraid my mama will be wondering where I've gone to."

"That's so, my little man," said Santa Claus, stopping short in his walk up and down the block. "Your mother will be worried, for a fact; and your father, too—I know how I'd feel if my little boy got lost and hadn't come home at dinner-time. I don't believe you know where you live, though—now, honest! Come! Fess up, Billee, you don't know where you live, do you?"

"Why, yes, I do," said Little Billee. "It's in the big gray stone house with the iron fence in front of it, near the park."

"Oh, that's easy enough!" laughed Santa Claus nervously. "Anybody could say he lived in a gray stone house with a fence around it, near the park; but you don't know what street it's on, nor the number, either. I'll bet fourteen wooden giraffes against a monkey on a stick!"

"No, I don't," said Little Billee frankly; "but I know the number of our portymobile. It's—'N. Y.'"

"Fine!" laughed Santa Claus. "If you really were lost, it would be a great help to know that; but not being lost, as you ain't, why, of course, we can get along without it. It's queer you don't know your last name, though."

"I do, too, know my last name!" blurted Little Billee. "It's Billee. That's the last one they gave me, anyhow."

Santa Claus reflected for a moment, eying the child anxiously.

"I don't believe you even know your papa's name," he said.

"Yes, I do," said Little Billee indignantly. "His name is Mr. Harrison."

"Well, you are a smart little chap," cried Santa Claus gleefully. "You got it right the very first time, didn't you? I really didn't think you knew. But I don't believe you know where your papa keeps his bake-shop, where he makes all those nice cakes and cookies you eat."

Billee began to laugh again.

"You can't fool me, Mr. Santa Claus," he said. "I know my papa don't keep a bake-shop just as well as you do. My papa owns a bank."

"Splendid! Made of tin, I suppose, with a nice little hole at the top to drop pennies into?" said Santa Claus.

"No, it ain't either!" retorted Little Billee. "It's made of stone, and has more than a million windows in it. I went down there with my mama to papa's office the other day, so I guess I ought to know."

"Well, I should say so," said Santa Claus. "Nobody better. By the way, Billee, what does your mama call your papa? 'Billee,' like you?" he added.

"Oh, no, indeed," returned Little Billee. "She calls him papa, except once in a while when he's going away, and then she says, 'Good-by, Tom.'"

"Fine again!" said Santa Claus, blowing upon his fingers, for, now that the sun had completely disappeared over in the west, it was getting very cold. "Thomas Harrison, banker," he muttered to himself. "What, with the telephone-book and the city directory, I guess we can find our way home with Little Billee."

"Do you think we can go now, Mr. Santa Claus?" asked Little Billee, for the cold was beginning to cut through his little coat, and the sandman had started to scatter the sleepy-seeds all around.

"Yes, sirree!" returned Santa Claus promptly. "Right away off now instantly at once! I'm afraid I can't get my reindeer here in time to take us up to the house, but we can go in the cars—hum! I don't know whether we can or not, come to think of it. Ah, do you happen to have ten cents in your pocket?"

Santa added with an embarrassed air. "You see, I've left my pocketbook in the sleigh with my toy-pack; and besides, mine is only toy-money, and they won't take that on the cars."

"I got twenty-five cents," said Little Billee proudly, as he dug his way down into his pocket and brought the shining silver piece to light. "You can have it, if you want it."

"Thank you," said Santa Claus, taking the proffered coin. "We'll start home right away; only come in here first, while I telephone to Santaville, telling the folks where I am."

He led the little fellow into a public telephone station, where he eagerly scanned the names in the book. At last it was found—"Thomas Harrison, seven-six-five-four Plaza." And then, in the seclusion of the telephone-booth, Santa Claus sent the gladdest of all Christmas messages over the wire to two distracted parents:

"I have found your boy wandering in the street. He is safe, and I will bring him home right away."

III

Fifteen minutes later, there might have been seen the strange spectacle of a footsore Santa Claus leading a sleepy little boy up Fifth Avenue to a cross-street, which shall be nameless. The boy vainly endeavored to persuade his companion to "come in and meet my mama."

"No, Billee," the old man replied sadly, "I must hurry back. You see, kiddie, this is my busy day. Besides, I never go into a house except through the chimney. I wouldn't know how to behave, going in at a front door."

But it was not to be as Santa Claus willed, for Little Billee's papa, and his mama, and his brothers and sisters, and the butler and the housemaids, and two or three policemen, were waiting at the front door when they arrived.

"Aha!" said one of the police, seizing Santa Claus roughly by the arm. "We've landed you, all right! Where have you been with this boy?"

"You let him alone!" cried Little Billee, with more courage than he had ever expected to show in the presence of a policeman. "He's a friend of mine."

"That's right, officer," said Little Billee's father; "let him alone—I haven't entered any complaint against this man."

"But you want to look out for these fellers, Mr. Harrison," returned the officer. "First thing you know they'll be makin' a trade of this sort of thing."

"I'm no grafter!" retorted Santa Claus indignantly. "I found the little chap wandering along the street, and, as soon as I was able to locate where he lived, I brought him home. That's all there is to it."

"He knew where I lived all along," laughed Little Billee, "only he pretended



he didn't, just to see if I knew."

"You see, sir," said the officer, "it won't do him any harm to let him cool his heels."

"It is far better that he should warm them, officer," said Mr. Harrison kindly. "And he can do that here. Come in, my man," he added, turning to Santa Claus with a grateful smile. "Just for a minute, anyhow. Mrs. Harrison will wish to thank you for bringing our boy back to us. We have had a terrible afternoon."

"That's all right, sir," said Santa Claus modestly. "It wasn't anything, sir. I didn't really find him—it was him as found me, sir. He took me for the real thing, I guess."

Nevertheless, Santa Claus, led by Little Billee's persistent father, went into the house. Now that the boy could see him in the full glare of many electric lights, his furs did not seem the most gorgeous things in the world. When the flapping front of his red jacket flew open, the child was surprised to see how ragged was the thin gray coat it covered; and as for the good old saint's comfortable stomach—strange to say, it was not!

"I wish you all a merry Christmas," faltered Santa Claus; "but I really must be going, sir."

"Nonsense!" cried Mr. Harrison. "Not until you have got rid of this chill, and—"

"I can't stay, sir," said Santa. "I'll lose my job if I do."

"Well, what if you do? I'll give you a better one," said the banker.

"I can't—I can't!" faltered the man.

"I—I've got a little Billee of my own at home waitin' for me, sir. If I hadn't," he added fiercely, "do you suppose, I'd be doin' this?" He pointed at the painted boards and shuddered. "It's him as has kept me from—from the river!" he muttered hoarsely; and then this dispenser of happiness to so many millions of people all the world over sank into a chair, and, covering his face with his hands, wept like a child.

"I guess Santa Claus is tired, papa," said Little Billee, snuggling up closely to the old fellow and taking hold of his hand sympathetically. "He's been walkin' a lot to-day."

"Yes, my son," said Mr. Harrison gravely. "These are very busy times for Santa Claus, and I guess that, as he still has a hard night ahead of him, James had better ring up Henry and tell him to bring the car around right away, so that we may take him back—to his little boy. We'll have to lend him a fur coat to keep the wind off, too, for it is a bitter night."

"Oh," said Little Billee, "I haven't told you about these boards he wears. He has 'em to keep the wind off, and they're fine, papa!" Little Billee pointed to the two sign-boards which Santa Claus had leaned against the wall. "He says he uses 'em on cold nights," the lad went on. "They have writing on 'em, too. Do you know what it says?"

"Yes," said Mr. Harrison, glancing at the boards. "It says, 'If You Want a Good Christmas Dinner for a Quarter, Go to Smithers's Cafe.'"

Little Billee roared with laughter. "Papa's trying to fool me, just as you did when you pretended not to know where I lived, Santa Claus," he said, looking up into the old fellow's face, his own countenance brimming over with mirth. "You mustn't think he can't read, though," the lad added hastily. "He's only joking."

"Oh, no, indeed, I shouldn't have thought that," replied Santa Claus, smiling through his tears.

"I've been joking, have I?" said Little Billee's papa. "Well, then, Mr. Billiam, suppose you inform me what it says."

"Merry Christmas to Everybody," said Little Billee proudly. "I couldn't read it myself, but he told me what it said. He has it printed there so that if he misses saying it to anybody they'll know he means it just the same."

"By Jove, Mr. Santa Claus," cried Little Billee's papa, grasping the old man warmly by the hand, "I owe you ten million apologies! I haven't believed in you for many a long year; but now, sir, I take it all back. You do exist, and, by the great horn spoon, you are the real thing!"

IV

Little Billee had the satisfaction of acting as host to Santa Claus at a good, luscious dinner, which Santa Claus must have enjoyed very much, because, when explaining why he was so hungry, it came out that the poor old chap had been so busy all day that he had not had time to get any lunch—no, not even one of those good dinners at Smithers's cafe, to which Little Billee's father had jokingly referred. And after dinner Henry came with the automobile, and, bidding everybody good night, Santa Claus and Little Billee's papa went out of the house together.

Christmas morning dawned, and Little Billee awoke from wonderful dreams of rich gifts, and of extraordinary adventures with his new-found friend, to find the reality quite as splendid as the dream

things. Later, what was his delight when a small boy, not much older than himself—a pale, thin, but playful little fellow—arrived at the house to spend the day with him, bringing with him a letter from Santa Claus himself! This was what the letter said:

DEAR LITTLE BILLEE:
You must not tell anybody except your papa and your mama, but the little boy who brings you this letter is my little boy, and I am going to let you have him for a playfellow for Christmas Day. Treat him kindly for his papa's sake, and if you think his papa is worth loving tell him so. Do not forget me, Little Billee. I shall see you often in the future, but I doubt if you will see me. I am not going to return to Twenty-Third Street again, but shall continue my work in the Land of Yule, in the Palace of Good-Will, whose beautiful windows look out upon the homes of all good children.

Good-by, Little Billee, and the happiest of happy Christmases to you and all of yours.

Affectionately,

SANTA CLAUS.

When Little Billee's mama read this to him that Christmas morning, a stray little tear ran down her cheek and fell upon Little Billee's hand.

"Why, what are you crying for, mama?" he asked.

"With happiness, my dear little son," his mother answered. "I was afraid yesterday that I might have lost my little boy forever, but now—"

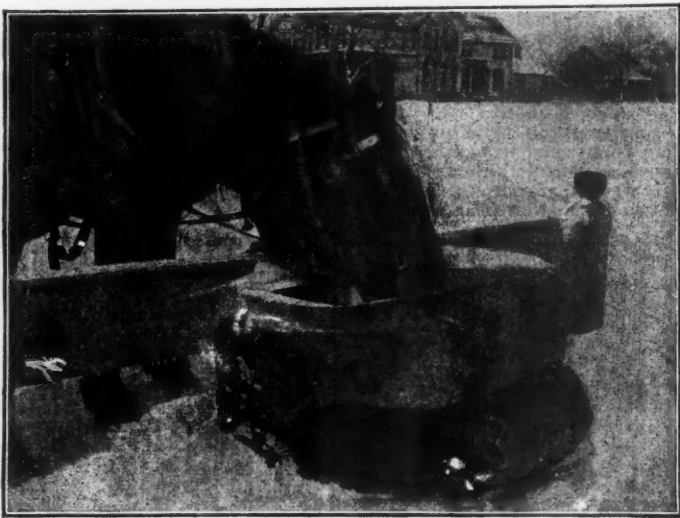
"You have an extra one thrown in for Christmas, haven't you?" said Little Billee, taking his new playmate by the

would reply, "Oatmeal, or shredded wheat." The first needs cooking, the second is already prepared to be eaten with milk or cream. In addition I would like a cup of weak coffee, an egg and a piece of toast. I desire no meat or potato for breakfast. Creamed dried beef, cantaloupe, pears, peaches, fried corn mush are good breakfast dishes.

For dinner I would always like soup as the opening dish. I prefer this to be followed by a small piece of fish. I do not care for meat at dinner. I like baked potatoes. Unfermented grape juice is a nice drink with dinner. Bean or pea soup is very nourishing. I prefer puddings to pies. Rice puddings are easily digested and nourishing.

For supper, corn meal mush with cream or milk is healthful and appetizing. I like a cup of hot mild tea, but often take a glass of milk in place of tea. I am so fond of fruit I would like to eat grapes, peaches, pears or apples at every meal. My physician says I am inclined to overdo the eating of fruit, but generally it agrees with me remarkably well. Creamed toast is desirable for the evening meal. Where there is no fresh picked fruit canned peaches, pears, raspberries or strawberries are acceptable for supper.

I advise the housewife to study the tastes of the husband, sons and daughters and to comply with them as far as possible, always regarding health above all other considerations. There are chief cooks who receive \$10,000 a year and some of them more than \$20,000 a year. It is the first duty of these chefs to see that no dish is prepared in such a way as to be



Individual drinking vessels for horses are advocated by Commissioner Lederle, of New York City Health Department, on the same grounds that have caused the adoption of the individual drinking cup for men and women. The common drinking trough, he says, is just as bad as the common drinking cup. In this connection we note that a New York City horse-lover has recently established free shower baths for horses. The horses seem to enjoy these baths hugely.

liable to disturb the digestion of those for whom it is intended.—C. A. Green.

Are You After the Cream?

Cream is good, wholesome, strength giving food. I use it freely at my home table.

The Editor of Green's Fruit Grower is hard at work every day and often at night searching for cream in hundreds of rural journals and in various magazines and other publications. I refer to items of human experience, some of them brief, others more elaborate, which I find scattered here and there through the press of this and other countries.

One of my important duties as editor is to endeavor to give my readers the cream of thought, that is the best thought by the best writers of the age on various subjects. Often I will look over a large daily or weekly publication, finding only two or three little articles which I consider of sufficient interest to my readers to warrant me in clipping them and republishing them with credit to the magazine or paper from which the clipping was made. On other occasions I may find in an evening's search one long article which I deem of sufficient interest to reprint in 125,000 copies of Green's Fruit Grower. Notice that I do not make all my clippings from farm publications. Some of them come from the daily papers and others from well known magazines.

As editor I have been more highly praised for these clippings which I have made and published than for any other branch of my work.

Do not judge of the value of an article by its length. It often occurs that a brief item containing only four or five lines may have in it greater suggestions than an article covering an entire column or page. When you read such an article in Green's Fruit Grower remember that as editor I have dug it out of the mine of the public press much the same way that a miner would dig out with his pickaxe a diamond from the mines of Golconda.

PEAR BLIGHT.

Necessity of Sunshine to Each Leaf.

Written for Green's Fruit Grower by Alvah H. Pulver, N. Y.

The pear blight is the most damaging of all ills that beset a pear orchard. Growers having cases of hold-over blight will do well to give the matter attention. Blight is a germ disease, as can be readily proved. Healthy stock inoculated with bacteria (the germs of blight) soon manifest signs of the disease. The idea is held by many that it is communicated by birds and even the wind. Inoculation could hardly develop from either of these agencies. The afflicted tree throws out a thick, sticky substance, sweetish in taste. This affords a palatable food for numerous kinds of insects who in their travels from tree to tree carry the disease. Propagation by this method has been watched and verified, establishing beyond doubt the infectiousness of the disease. Rapidity of development and the progress of the disease are influenced to some extent by climate, soil and variety of pear. The Department of Agriculture has named the germ the bacillus amylovorus. It is an oval shaped body and can be clearly seen under a high-power microscope. It has been established that the blight that is held over through the winter is capable of inoculating healthy portions of the tree in the following spring.

The treatment recommended is the cutting out of the affected part and disinfecting the wound with a solution of one part of corrosive sublimate (a concentrated poison) to 1000 parts of water. With this treatment much of the individual tree may be saved and its spread to other parts of the orchard stopped. Note this: It is necessary to disinfect all tools in the wash so that the instrument itself may not communicate the disease. This is the best time now to remove all hold-over blight.

Nature is ever a teacher and some of her greatest truths are revealed through the most commonplace mediums. Here in the great fruit belt around Sodas, N. Y., where some of the best specimens of orchard property in the state are found, are men who have given years of study to the fruit tree and methods of culture. It is very common here for the unschooled farmer to possess a technical grasp of the needs of his fruit trees and of the care required to secure the maximum bearing. In this connection there is a point of more than local content of meaning and the point presented is that of the effect of sunlight on the leaves of the tree. To be precise, it has been determined by these specialists that a leaf which is not exposed to the sun's rays at any time during the day not only does the tree no good, but that the tree would be better off without it—there seeming to be a vitality and life which the leaf extracts from the sunshine and imparts to the tree, while the leaf always in the shade, figuratively might be said to be riding in the shadow, rather than sharing in the growth of the tree.

Nature's lesson is not hard to find. In a sense, we are leaves on the great tree of humanity. The trunk of this great tree is love, and the branches are labor. Love and labor put forth the leaves of life, unfolding in the buds of babyhood. We have all seen human leaves which have never been exposed to the rays of any sun. Sallow and sapless. The least little wind of work makes them tremble. The first frost of weakness shrivels them and they fall to their old mother and sleep the long sleep in her tight folded arms. It is not pleasant to think of them.

And we have all seen human leaves that were born in the bright sunlight and have lived in its glad bright rays for many years. What splendid color and form they give to the big tree. What grateful shade is cast by them. What rich fruit is borne on the limbs where they grow, drinking in the good joys of living and glistening in the truths of nature and God; giving strength to the whole tree.

It is sunlight that does all this. It is the sunlight from the sky that does it, for the leaves of the fruit tree, and sunlight from the soul that does it for the leaves of the human tree.

Nature asks, silently, "are you riding in the shadow" or "sharing in the growth?"

Help the Needy.

"Those of us who have as much as we need are morally bound to do what we can to help into a better position those who have so much less than they need." Dr. Henry Rogers Seager, professor of political economy at Columbia University, said.

"We are bound to do so," he went on, "not only for the sake of those who need our help, but for the sake of the rest of society, ourselves included. For, as long as any part of society lives so unwholesomely as those must who do not get a decent living wage, all of us must share in the hurt. It is impossible to damage any part of the social body without hurting the whole of it. So it is incumbent upon us all to try to bring about a better state of affairs."

An Orchard as an Insurance Policy

Written for Green's Fruit Grower by John E. Taylor.

Back to the Farm.
Written for Green's Fruit Grower by
Aug Robert Mueller.
(Who says this is his first poem.)
Back to the farm I'll return some day
Why drudge in the city for others,
I often think of the good days on the farm,
When I left my sisters and brothers.
Back to the farm again and then
I'll be happy and contented
To work with delight in God's fresh air
As nature has intended.
Back to the farm once more for me
To plow and plant and sow,
And gather the fruit and golden grain,
On the place I left years ago.
Back to the farm to my dear old home,
To the horses and old brindle cow,
Where I hear the song of the reaper
And love to follow the plow.

How to Make and Fill an Ice House.

The best location for an ice house is on the north side of a building, but not under the eaves. The best soil on which to build is one that is porous enough to allow the melted ice-water to escape without the use of a drain tile, as that will let in a current of warm air and cause the ice to melt quickly, says Indiana Farmer.

If the soil is not sandy or porous, the ice house should be built on high ground so that the water will easily run off.

The ice house may be made of lumber or poles, lumber being preferable. For the average use a house 12 or 14 feet square will be large enough. It will be easier to fill the house if the builder will excavate four or five feet deep, as a less amount of the ice will have to be raised above the surface of the ground. Lay down scantling at the bottom of this excavation and cover them with rough boards for a floor. Plank up the sides and strip the cracks. Put on a good roof. Have the floor so that the water from the melted ice can get out easily or the ice will melt rapidly.

When ready to fill the ice-house have plenty of saw dust on hand. Begin by putting a layer of saw dust one and one-half or two feet deep in the bottom. Pack solid by tramping or pounding with a heavy maul. Saw the ice into blocks as large as can be handled. Place these blocks on edge beside each other within eighteen inches of the walls of the house, forming a square block. Where there are any cracks between the cakes of ice fill in with small pieces of ice, do not put saw dust between the blocks. In a short time this ice will all be frozen together in one solid block. Fill in saw dust all around this block of ice, tramping it down solid. When this first layer is in good shape put in another on top of it and pack saw dust around the outside between the ice and the wall as before. Keep putting in ice and packing down saw dust until you have enough; then cover over the top with saw dust eighteen inches deep. If good saw dust is used and it is packed solidly around the ice,—not in between the layers—and the ice is in good condition it will last all summer.

For the Farmer and Family.

By a Farmer's Daughter, Ethel Elizabeth Wall.

"Cast thy burden upon the Lord, and he shall sustain thee."

Of all those who praise God and acknowledge His mercies and blessings the farmer's praises must be the more sincere. A farm life always appealed to me as being the nearest to God. Do our thoughts not more constantly and instinctively turn to Him when in the midst of His great handiwork; when surrounded by green fields, stately forests, an abundance of fresh air and pure water, and the big beautiful blue sky overhead? Do we not feel nearer to Him than when we walk along crowded streets in the smoke and grime of the city? How much more pleasing to the ear are the songs of the sweet-voiced birds, the ripple of sparkling waters, the drowsy tinkling of old Bossy's bell in the fresh pastures, than the shrill whistle of engines, harsh grating noises of machinery, and the din and roar of traffic in the streets of the city.

How pleasant it is after the day's work is done to sit in the cool of the evening on a comfortable porch with your family gathered about you, and remember that there is a higher power than yours to bear the burdens and griefs of life. To know that you have only to tell a loving Father of your troubles, and to trust implicitly in His loving kindness, and all shall be well. No use in fretting over the cares of the day gone, and probable cares of the morrow, no, trust a higher power for that, "And the night shall be filled with music. The cares that infest the day shall fold up their tents like the Arabs, and as silently steal away."

Spend a part, at least, of the beautiful twilight hour in teaching your little ones that His way is best. Keep ever fresh in their childish hearts the beautiful story of a loving Saviour, and above all things keep the story fresh in your own heart, for the light must shine in before it can shine out. So live children ever at heart, children of your great and Heavenly Father "casting all your care upon Him for He careth for you."

It is seldom that one hears a farmer who has a good orchard say that farming does not pay. To the contrary this farmer will invariably say that an orchard is the best paying proposition on a farm, and that a farmer need not worry about money for a "rainy day" if he has a good orchard and cares for it.

The above statement might be challenged by some doubtful would-be farmers if it wasn't for the fact that there are many orchardists who are willing to bear out the statement and pronounce it true. One of these farmers is S. H. Beal of Somerset County, Maine. For thirty years now he has had an orchard and for the last twenty years he has had about 1,000 trees. He was asked by the writer a short time ago if an orchard paid. He did not hesitate but a second and when he spoke these were the words, "Yes an orchard pays the best of anything that a farmer can have upon his farm." He went on to say that in the poorest year when prices were low and apples were scarce that the orchard then brought a profit. The writer said to him:

"How much is an apple tree that has been cared for worth when it is ten years old?"

Mr Beal thought a minute and then answered, "It is equal each year after that to \$100 at interest."

A statement like this coming from a man who has owned an orchard long enough to know what it will do, makes the statement of considerable importance to any would-be farmer.

quisites. He sprays just as the blossoms begin to fall and about ten days after, using lime, sulphur and arsenate of lead, fifty gallons of water, six quarts of lime, three pounds of sulphur and three pounds of arsenate of lead. By keeping an orchard sprayed he believes that he keeps away all apple pests and therefore has little wormy fruit and the yield is good as far as pests are concerned.

Mr. Beal's orchard is situated on a hill at an elevation of about 350 feet above sea level. The natural tendency of the soil is rocky and the orchard has somewhat of a westerly slope.

In considering the value of an orchard to the farmer and that an orchard was equal to an insurance policy of the endowment type, he stated that it cost little to raise an orchard and in the particular case where he mentioned that an apple tree at ten years of age was equal to \$100 at interest, he stated that the cost was nothing, that the crops in the orchard furnished returns equal to the expense of caring for it.

Mr. Beal markets the most of his apples in Liverpool. As in everything else, if one has anything to sell markets should be studied to see where the best returns can be had.

Spray Mixture Required.

Dr. H. A. Surface of Pennsylvania, speaking of lime-sulphur spray says:

"We are now so thoroughly convinced of the great value of an annual spraying

cut the top out of it, leaving the center of the top hollow, making the tree bell-shaped. The object of this is twofold: To protect from frosts the buds on the inside of the branches and as the fruit grows the weight of the peaches will straighten out the branches so that the fruit will get the sunlight for ripening, and picking is also rendered an easy matter.

During the first two or three years grow hood crops in the orchard just as if the trees were not there. After that cultivate the orchard once or twice a week from early spring until July 1st. Fertilize the ground well in the spring. If fertilized in summer or fall, or cultivated after July 1st, the tree will keep on growing. It is better that the leaves fall early. Then next spring's buds will get a chance to set and dry out before the first freeze comes in the fall. But, if in the summer, the leaves begin to lose their color, the tree should be fed at once with fertilizer in an easily assimilated form.

Be on your guard against diseases in growing peaches. First, be sure the tree you plant is perfectly free from diseases which are common to nursery stock, such as crown gall and similar bacterial diseases. For leaf curl, a disease common to peach trees, spray with lime-sulphur just before the buds open. Also if you want a healthy orchard protect the trees against winter injury, which is caused by the winds and storms rocking the trees back and forth until they are bruised around the base and organic matter gets in and diseases them. Yellows and little peaches are the two most prominent diseases and can be transmitted in budding. The only thing to do when these diseases are detected is to remove the affected trees at once. These diseases cannot be carried over in the soil.

Look out for insects. Among the insects which affect the peach are the plum curculio and peach tree borer. The first may be taken care of in the course of the regular spraying schedule, beginning to spray at the time the petals drop, and keeping the peach fruit covered with the poison for a month or six weeks after the petals drop. The peach tree borer worms into the trees. Remove the earth from around the base of the trees, and apply with a brush a coating of warm asphaltum as a protection. This is put on in the spring and is not injurious to the trees. Spray twice, with the wind in opposite directions, to thoroughly cover the trees. By covering the hands and face with vaseline, and spraying on a windy day, from the windward side, you will keep away from the unpleasantness of handling the lime-sulphur solution.

President Wilson on the Bible's Influence.

The opinion of the Bible bred in me, not only by the teaching of my home when I was a boy, but also by every turn and experience of my life and every step of study, is that it is the one supreme source of revelation, the revelation of the meaning of life, the nature of God, and the spiritual nature and needs of men. It is the only guide of life which really leads the spirit in the way of peace and salvation. If men could but be made to know it intimately and for what it really is, we should have secured both individual and social regeneration.—Woodrow Wilson.

Editor's Note: Nature, also current history, also reveal God to man, hence the Bible will continue to be written.—C. A. G.

FULLY NOURISHED.

Grape-Nuts a Perfectly Balanced Food

No chemist's analysis of Grape-Nuts can begin to show the real value of the food—the practical value as shown by per onal experience.

It is a food that is perfectly balanced, supplies the needed elements for both brain and body in all stages of life from the infant, through the strenuous times of active middle life, and is a comfort and support in old age.

"For two years I have used Grape-Nuts with milk and a little cream, for breakfast. I am comfortably hungry for my dinner at noon."

"I use little meat, plenty of vegetables and fruit, in season, for the noon meal, and if tired at tea time, take Grape-Nuts alone and feel perfectly nourished."

"Nerve and brain power and memory are much improved since using Grape-Nuts. I am over sixty and weigh 155 lbs. My son and husband seeing how I had improved are now using Grape-Nuts."

"My son, who is a traveling man, eats nothing for breakfast but Grape-Nuts and a glass of milk. An aunt, over 70, seems fully nourished on Grape-Nuts and cream." "There's a Reason."

Name given by Postum Co., Battle Creek, Mich. Read "The Road to Wellville," in pkgs.

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.



Orchard owner's home—His orchard on the hillside.

But one does not want to get it into his head that no work is required to make an orchard a paying proposition. To the contrary as with any enterprise that is worth while, much work is required. Mr. Beal believed that much care should be taken in setting out an orchard. Good varieties should be chosen and good thrifty looking trees should be set out. His first venture in the orchard work was not what it would be now in the matter of the best varieties. His trees are divided about equally in Baldwins, Ben Davis and Northern Spies, but his more recent variety chosen is the Stark. He said, "I consider this the best all round variety that can be raised in this territory. The apples are good keepers, furnish a better market and begin to bear earlier than some of the other varieties."

One of the most essential things about orcharding is the cultivation phase. The orchard should be cultivated each year. The first two or three years, crops that can be harvested, like potatoes, corn, etc., can be planted. After a tree begins to bear which in the case of the Stark apple, according to Mr. Beal, is five years from the time it is set out, a cover crop should be planted each year in the orchard. This should be buckwheat, for instance, and he believes that clover makes a good fertilizer crop. He sows these in the spring and in the fall he plows them in. They make fine dressing and fertilize the ground and at the same time furnish the required chemicals to keep the ground sweet for the benefit of the orchard.

An orchard is good for 50 to 75 years after it begins bearing. When a tree is 10 to 15 years old it should yield from three to five barrels. Mr. Beal has trees that are now 75 years old and last year yielded three barrels to the tree and the trees are in good thrifty condition. He has trees that have yielded as high as seven barrels to the tree; one of them being of the Tolman Sweet variety.

Spraying is one of the important re-

of all fruit trees with the lime-sulphur solution at the strength indicated by the hydrometer test of 1.03 specific gravity during the dormant season that it is to be recommended to be applied as a universal practice in all orchards within the state, once each year without regard to the presence or absence of any particular pest or pests.

"This treatment comes nearer being an orchard cure than any other known treatment now available. Lime-sulphur is not only the sovereign remedy against San Jose scale, oyster shell scale, scurvy scale and resting winter spores of most fungus diseases, as leaf curl and Manilla rot, but also a sure destroyer of the eggs and young of many destructive insects and other pests now on the trees, as, for example, leaf blister mite, red spider apple aphid, wooly aphid, bud moth worm, gall mite, etc."

"Indeed, the rapid improvement in the condition of fruit trees of all classes from a state of unthriftiness and injury under the most trying conditions after receiving thorough treatment with the lime sulphur solution can only be accounted for on the basis of some direct stimulant or tonic effect by lime sulphur, possibly by absorption of this material into the tissues of the trees."

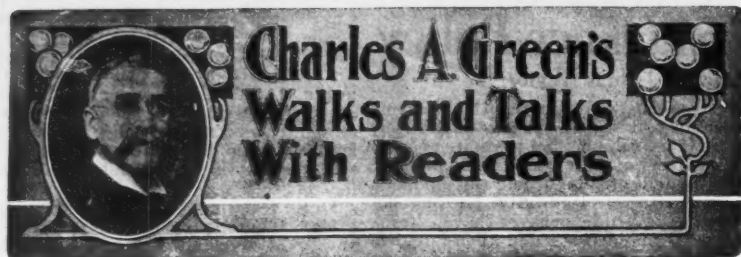
"The spray falling upon the ground acts as a valuable fertilizer and is in no way detrimental to the health of the most delicate tree or shrub."

POINTS FOR PEACH GROWERS

The "Vegetable Grower" contains the following useful hints on the starting and care of peach orchards:

In establishing a peach orchard, select, if you can, an elevation sloping preferably to the north, as a southern slope might mean earlier buds, to be caught by late frosts.

Select strong, vigorous, one-year-old trees, cut off all the limbs, and cut the tree to a whip, not over three feet in height. After the tree branches out again



Charles A. Green's Walks and Talks With Readers

"Think nothing done while aught remains to do" said Napoleon.

ROCHESTER, N. Y., DECEMBER, 1913

Traps Are Cruel Devices.

Those who trap wild animals in order to secure their pelts cause much suffering. The animal when caught in the trap suffers intense agony every moment. If the trapper visits his traps every day much pain will be avoided, but often in the wilderness he does not visit his traps oftener than once a week and possibly not oftener than once a month. In such cases the entrapped animal must not only suffer torture every moment but must be starved. Those who trap wild animals should be merciful.

A New Method of Keeping Cider Sweet.

Here is something new under the sun in regard to keeping cider sweet. We wonder that this method has not been discovered and practiced long ago.

It is conceded on all sides that if cider can be kept from the air it will remain sweet. In order to bring about this condition in the easiest way possible, place the barrel of sweet cider on end after freeing the cider so far as possible of sediment or particles of apple pomace. Notice that by placing the barrel on end not one-half of the surface ordinarily exposed to the air will be exposed. Then pour into the bung-hole in the top of the barrel a pint or more of mustard seed unground. Then pour into the end of the barrel a quart of castor oil. This oil will remain on the surface and protect the cider beneath from coming in contact with the air. Then bung up the barrel and under no circumstances turn the barrel down on the side. Leave the barrel permanently on end. Have a faucet near the bottom of the barrel from which to draw the cider as wanted.

Mistakes In Sorting Apples.

I have just written the foreman of Green's Fruit Farm to be careful and see that no undersized, wormy or otherwise disqualified apple shall go in the first class barrels or boxes. If even four or five inferior apples are placed in a box or barrel it disqualifies the package, and yet the value of those four or five apples is scarcely worth considering. Therefore you can see at a glance that it does not pay to put into any box or barrel an inferior apple.

The marvelous success of the apple growers of the Pacific coast and the middle west has been brought about in part at least by their careful sorting or grading. We of the eastern states must learn to grade carefully and then demand a price that will correspond with our grading. Here is one source of distress. Buyers in the past have not discriminated carefully enough between the man who grades carefully and the individual who takes greater pains in grading, paying all about the same price. This is certainly discouraging to the good honest grader and packer.

The Thinker.

When I look over the inhabitants of a village or a city and see them in action or conversation I am inclined to the opinion that man is not by nature a thinker. It would seem that most people are willing that others should do their thinking for them. The thinker is not always a popular man for he is apt to differ from his friends or neighbors in his opinion of religion, politics or other worldwide subjects, but the thinker has revolutionized the world. Were it not for him the human race would still be without ships, railroads, the telegraph, telephones, and other notable inventions. Were it not for the thinker a large portion of the world would be undiscovered. Columbus was a thinker, otherwise America would not have been discovered. The thinker does not always secure his just reward. Columbus died in oblivion. The death of Shakespeare was scarcely noted. The sayings of Christ were not appreciated or published until sixty years after his death. The inventor of the cotton gin, which has added hundreds of millions of dollars to the wealth of this country, received nothing for his invention.

3,000,000 Italians.

It was not long ago that the immigrants to this country were Germans and Irish with a few English and Scotch. Now the immigration to this country are

mostly Italian. I am told that 3,000,000 Italians have arrived on our shores within the last few years. It is estimated that there are about 20,000 Italians in Rochester, N. Y. Our churches are building missions for these Italians in this city. The Italians are good workers and as a rule do not shirk their work. It is their misfortune not to be able to speak the English language or to understand it, but nevertheless they seem to get plenty of work at good wages. After the Italians have been in this country a few years they are inclined to go back to Italy taking with them their earnings, which is a loss to this country.

We should not be prejudiced against the Italians or any other class of people. Surely they cannot work in the trenches and in the mortar boxes and wear clean clothes. We must not forget that Marconi is an Italian, as were also Christopher Columbus, Savonarola, Michael Angelo, Raphael and Garibaldi. It is claimed that the telephone was invented by Antonio Macouchi.

The Old Oak Bucket.

How dear to my heart are the scenes of my childhood. When fond recollection presents them to view! The orchard, the meadow, the deep-angled wildwood, And every loved spot which my infancy knew! The wide-spreading pond, and the mill that stood by it, The bridge and the rock where the cataraet fell; The cot of my father, the dairy house nigh it, And 'on the rude bucket that hung in the well.

How sweet from the green, mossy brim to receive it, As, poised on the curb, it inclined to my lips! Not a full-blushing goblet could tempt me to leave it, The filled with the nectar that Jupiter sips. And now far removed from the loved habitation, The tears of regret will intrusively swell, As fancy reverts to my father's plantation, And sighs for the bucket that hung in the well.

Readers of Green's Fruit Grower are familiar with this poem, the refrain of which is, as I recall from memory:

The old oaken bucket, the iron-bound bucket, The moss-covered bucket that hung in the well.

Mr. A. B. Lamberton, president of the Park Board of Rochester, N. Y., tells me that the origin of these beautiful verses was something as follows:

A young man, a student in college, late one night found himself roystering and drinking with a dozen or more half-drunk students. Suddenly he became convinced of the folly of his course. He dashed to the floor the liquor he was about to drink, left his noisy companions and sat down to a table. His change of thought and conduct was caused by a sudden recollection of the old well and the old oaken bucket which hung in it on the farm home where he was born, and where his aged father and mother were living in poverty, sacrificing themselves in order to defray the expenses of their boy far away at school. Filled with inspiration and remorse he grasped a few sheets of paper and dashed off the immortal poem.

Our Editor Wants to Know.

He wants to learn whether he is meeting the expectations of his readers in that which he publishes in Green's Fruit Grower.

Remember that it is difficult for the editor to learn precisely what the majority of his readers want to find in their favorite publication, also that there are many kinds of people embraced in the 125,000 homes in which Green's Fruit Grower arrives each month.

Our editor has made an effort to study the situation during a period of forty years, striving to learn what to publish and what to omit, in order that his readers may be benefited.

Have you found this publication helpful, not only to the worker in the field and the manager of the farm but to the housewife and to the sons and daughters? If there has been any deficiency what would you suggest in the way of improving this publication?

Have I added to your interest in farm life or your love for the farm, the rural church, the rural school, the animals on your farm and other attractions of farm life?

Has our editor helped you make the farm pay better profits? I am confident that if you have read carefully the answers to correspondents by Prof. Van Deman and others, and have applied them in the management of your farm, that each issue of this magazine should have been equal

to the value of at least one year's subscription.

We ask for your co-operation in making Green's Fruit Grower as attractive and helpful as it is possible to make it. You can do this by your kind suggestions, by telling us of your mistakes as well as of your success. Our editor takes no offense at criticisms and seeks advice. Send us photographs. They must be clearly defined.

Over 50,000 Girls Disappear Each Year in this Country.

Few readers will think it possible that the above headline is true but it cannot be doubted. It is an absolute fact. In 1910 over 1700 girls disappeared while traveling between New York and Chicago alone; in 1911 over 900; in 1912 over 600. This indicates that something is being done to prevent the trapping or beguiling of young girls while journeying through the country.

Not long ago I related in Green's Fruit Grower an account of my niece, Mrs. Baldwin, who has achieved fame on the Pacific coast and is known over the entire country as a worker and organizer in preventing the downfall of young women. Mrs. Baldwin had charge of an organization at the late World's Fair at Seattle and Portland.

There are many ways in which girls are entrapped even in broad day light on Broadway, or other leading streets of New York City, or of similar streets in other large cities. Procurers disguise themselves as Sisters of Charity or as agents of the Red Cross Society and in these uniforms easily impose upon not only immigrants recently arrived in this country but on those who have long resided in the cities where they are kidnapped. The methods of these agents of the devil are past comprehension. The safe thing for young women to do in traveling or moving about cities is to pay no attention to remarks made by strangers, and accept no guidance from strangers.

Early Morning.

City people as a rule sit up late at night and arise late in the morning. There are hundreds of thousands of people in this country who have never seen the sunrise. It is useless to tell such people of the inspiration given to us by sight of the sun rising in a clear sky at any season of the year, but particularly in June and October. The objects between us and the sun make a vast difference in the attractiveness of the view. If in the eastern landscape there are mountains or high hills or forests through which the first gleaming rays of the morning sun are seen the enchantment of the view is greatly increased. I once was awakened at four o'clock in the morning with a party of companion travelers to see the rays of the rising sun light up Mount Blanc in Switzerland. This marvelous mountain peak, resembling a rough hewn church steeple over 15,000 feet high, looked like a mass of burnished gold, but the village at its foot was in the shadow and would not receive the rays of the sun for many hours.

In selecting the location for a dwelling we should consider the view from the east and also the view from the west, where the sun casts such beautiful tints upon the moving clouds. In my dwelling the dining room window opens upon the east. There every clear morning I see thousands of acres of sunshine. There are high hills twelve miles distant, over which the sun climbs each morning and I am fanciful enough to think for the moment that its beauties are all for me.

Great Achievements by Little Effort.

How came we by the Baldwin apple, the Rhode Island Greening, Northern Spy, Banana apple, the Crawford peach, the Concord grape, and nearly all of the popular and valuable fruits of the present day? Some will answer thoughtlessly that we secured these varieties by careful selection by crossing the pollen of different varieties, by what is known as scientific methods. But this is not the truth. Individuals mostly unknown have secured these varieties, which have been worth millions of dollars to each state in which they have been grown, by permitting some wild seedling to grow up undisturbed along a line of fence or open ditch where the plow or harvester did not disturb them. Seedlings of fruit trees thus springing up in waste places have a tendency to produce inferior fruit, therefore ninety-nine farmers out of a hundred would feel no interest in protecting such promiscuous new candidates for public favor in the way of fruit, plants, vines or trees.

We have a letter telling of the origin of the Rhode Island Greening. Some one found this tree growing in a secluded spot about 160 years ago. It is remarkable that Green's Fruit Grower should at this late date be able to tell the story of the origin of this apple or that anything should be known about the man who pro-

duced it in its early years. How little did that man dream that his thoughtful act would add millions of dollars to the wealth of this country. How true it is that the good we do lives after us and that the evil we do is not always buried with us. You who read these lines do not forget that it is possible for the peach, plum, pear, apple or cherry tree that springs up in the fence room on your farm may, if protected by you, cause your kind act to be remembered 160 years after you are dead, as has been the case with the man who protected the wild tree which later came to be known as the Rhode Island Greening.

Solitude.

Man is gregarious. Whether men, women, or children, we take pleasure in gathering together, in holding communion with one another. Children naturally prefer to associate with children, young men and women with people of their age, and the aged with those of about their own years. Most people are pleased to be with the crowd. This is the reason why humanity ever has and ever will drift toward cities. Every Saturday night the streets of our cities are thronged with young people wandering aimlessly up and down the sidewalks chattering like magpies. I am reminded on these occasions of the vast congregation of crows and blackbirds which I used to see more frequently as a boy on the farm. Here is an indication that the lower animals also love companionship. Notice how talkative crows and blackbirds are when gathered together. It is one endless chatter.

We are benefited by our association with others. It is not possible to rub up against even one individual and hold converse with him without learning something. How much more helpful it is when we associate with numerous bright men and women.

But this does not argue against the advantages of solitude. Occasionally it is well for us to get away in some lonesome place, surrounded only by the Creator and his beautiful handiwork. In such a situation we are reminded of our littleness, of our brief span of life, of the immensity of space, of the glory of God, and of the fleeting things connected with the life of man. Our greatest thoughts are conceived in solitude. Christ spent much time by himself in the desert places and among the mountains. The Apostle Paul wrote many of his inspired letters when in prison. Bunyan wrote his immortal book when confined in a dungeon. The poet seeks seclusion when preparing his epics. John Burroughs, the naturalist, has a rude cabin in the woodland.

The Dreamer.

We are told in the Good Book that "Your young men shall see visions and your old men shall dream dreams."

It is necessary it is that we should see visions, that is that we should make active use of our imagination. The unimaginative man is sadly handicapped for he can see only facts and realities plainly set forth before him, whereas the man who sees visions can look into the future and see inventions, reforms and innovations before they are born, or can himself bring unknown things to life.

Old men are ever dreaming dreams. We are told that old men dream of the past, which is true. They are ever turning with delight to the days of childhood and to the paths trodden with childish feet, and to the faces of those who helped to make youthful days happy and prosperous. Old men also dream of the future. With them time passes far more rapidly than with young people, therefore their dreams of the future are realized sooner than they had hoped. Aged men have been warned not to plant orchards, the fear being that they would not live to see their trees bear fruit, but there are thousands of such men who have planted orchards in their old age and have lived to see them yielding bountifully.

It cannot be expected that aged men will dream of the future with as much confidence as will younger men, for they have met with many experiences which teach that our expectations should be held in moderation and that the dreams of youth are seldom fully realized.

In ancient days man held superstitious ideas of dreams, believing that the Creator communicated with men through dreams. Of late years there are few who hold such ideas. It seems natural for the brain to retain some activity during sleep. During these periods of our lives the brain picks up impressions made upon it fifty or more years ago, recalling with vigor those early scenes and experiences.

A piece of a woman's mind often disturbs a man's peace of mind.

"John, why are you raising that window? Don't you know I will be unable to speak above a whisper by morning?" "Yes'm."—Houston Post.

Just as of Old.

Just as of old, the moments come and go,
The Spring with its flowers, and the Winter with its
snow.
The hours pass away, the seasons warm and cold,
And Time runs along today just as of old.

But, ah! how we change as the years come on anew,
The heart grows strange that once was fond and true,
And dear friends part, while others pass away,
And sadly sighs the weary heart, day after day.

But just as of old, the many stars appear,
And greet us again as in some forgotten year,
And flowers bloom anew and rivers ever flow,
Just as they did in days of yore, long, long ago.

The Brevity of Life.

By C. A. Green.

As I look out of my office window in early November I see the maple tree filled with tinted foliage which but a brief time before was loaded with opening buds getting ready for spring growth.

It is much the same in human life. Springtime is soon followed by autumn, and, as Shakespeare says, "The winter of our discontent." The events that are as fresh in my mind as though they occurred yesterday, and which seem to be occurrences of recent date, actually occurred forty years ago. When I see a youthful man or woman with the bloom of youth upon his or her cheeks, eyes sparkling with merriment, and hair waving and beautiful, I breathe a sigh of regret, for I know that soon those light brown locks will be tinged with gray, the face will be wrinkled and the brow saddened with experiences of the passing years. And yet old age is not so sad as many would have us think.

In old times people were considered aged at fifty. At the age of seventy men and women were devoted to the arm chair drawn close to the warmth of the grate or register, the life being inactive, but now for both men and women approaching old age a new era has dawned. Activity has taken the place of retirement and sluggishness. The women of mature life are seeking avenues of helpfulness in foreign and home missionary work and in many other ways. Men approaching old age are not only active in business, feeling that it is necessary to have something to do each day and hour, but they have outdoor games, such as golf, tennis, boating, hunting, fishing, and other athletic outdoor pastimes. They have also their indoor games and amusements, such as billiards and other innocent pastimes.

A certain philosopher says that death is a blessing. I think we should look upon it as such, for it only comes to most of us when the body and mind are completely worn out. We can postpone almost indefinitely the date of our withdrawal from earth by activity and precautions that tend to lengthen our days. A certain member of my family is 86 years old. He feels and acts like a boy. I see no reason why he should not live to be 100 years old. There are many who live even longer than that. The worst possible thing that a man can do to avoid the ills of advanced age is to yield to the tendency to be inactive. Activity is life. Without activity death cannot be long delayed. It is a fatal mistake for a man to give up his business at any age, provided he has the necessary health and strength. Naturally he will give up a portion of his business cares, retaining enough, however, to keep his mind actively employed. A farmer and fruit grower approaching old age should be in such a prosperous condition financially as to warrant giving his farm better culture and attention than ever before. He can afford now to try some experiments that he would not have dared to attempt in the earlier years through lack of money. The mistake of some owners of farms is that they are all working in the same rut. The aged farmer should get out of the rut and experiment with new crops on his land. One advantage will be that the new crop will find plant food in a partially impoverished soil. Another advantage will be that it will give the landowner's mind an opportunity to expand, will give life new interest and will thus add to the years of his existence. Those who have confined themselves entirely to growing ordinary farm crops may take a new lease of life by going into fruit raising, poultry keeping or the feeding and fattening of sheep and cattle. By the latter method they will greatly increase the fertility of their land.

Dehorning Trees.

The apple, pear and peach trees can be successfully dehorned if it is found necessary. By dehorning I mean the cutting off of all branches, leaving simply stubs of branches on the trunk 3 to 4 or 5 feet long. With pear and apple trees such dehorning would not be necessary unless the trees have grown to an extraordinary height. But even then I would not dehorn but would simply cut back the top branches to reasonable distance from the ground.

Old peach trees in old orchards that seem to be on the decline can be revived and renewed in vigor by dehorning in the way I have mentioned above. This dehorning can be done on peach trees late

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Subscribers who intend to change their residence will please notify this office, giving old and new addresses.

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in the spring during the year when the trees do not promise to produce a crop of fruit. It is surprising what can be done in the way of dehorning peach trees. In order that you may get the experience I advise that you dehorn one tree the coming spring, and watch the result.

Our Michigan Letter.

C. A. Green:—We are enthusiastic readers of Green's Fruit Grower and especially as regards apple culture.

When we came here from Chicago nine years ago, this farm had about 90 apple trees on it, eighteen years old, bearing every year apples scabby and imperfect in shape.

My husband bought a good sprayer outfit and as they had never been sprayed or pruned in any way were in terrible shape. He cut them right and left, did



Photograph of Maple Road Fruit Farm owned by A. L. Byers, Upper Peninsula, Mich.

some grafting and sprayed constantly. Now we have one of the finest orchards in Schoolcraft County and when others around take their apples to town and cannot sell, my husband wraps his, packs them carefully in bushel boxes and sells them at \$1.25 a box.

We have three seedling trees about 25 years old, their fruit is of an excellent quality and the apple will keep until the middle of March and sometimes longer. One is a dark green, never changes, very firm and fine grained. We have never named it and different ones have asked us why we did not sell the tree for grafting purposes. Can this be done and if so what is a tree worth?

I enclose you a small picture of our girls taken under one of our Duchess trees.

Hoping your paper will keep on with its good work and wishing you success, I remain.—Mrs. A. L. Byers, Mich.

Willing to Try.

At a Christmas dinner for the newsboys out in Denver, one of the sturdy lads was urged to take a third piece of pie. He thought a moment, then nodded and said: "I guess I can manage it if I stand up."

What is the Most Important Winter Work in Orchards.

The most important winter work is in pruning and clearing up the brush. If the orchard, whether young or old, is looked over carefully once a year, cutting out here and there a branch, it will not be necessary to do much pruning in the peach, pear or apple orchard, therefore I need not say much about the pruning of those orchards that have been gone over each year as they must be in good condition.

The neglected orchard, whether young or old, is the one that requires particular attention and the winter months are the time for doing the work of pruning. Trees can be pruned any time that they are free from foliage, which in this section is from October to April first.

If you have no experience in pruning apple trees and your orchard has been neglected, I advise you to secure the services of an experienced pruner, for it is not easy to state in a written communication how the pruning should be done, though I will try to give you a few thoughts on the subject.

It is not good for the trees to have a large number of large branches cut out during any one season, for if such cutting is done numerous sap suckers are apt to start out all over the trees, which must be removed later at considerable expense. Do not cut off the low branches since it has been learned of late years that the lower trees branch the better, as low-headed trees can be more easily sprayed and the fruit more easily picked. Cut out branches that cross other branches or that make the center of the tree too dense, but do not attempt to let the sunshine into the center of the tree too freely by removing branches in the center.

After the pruning has been done paint the wound with some good thick white lead paint, which will protect the rot from entering the tree at the point where the branch is cut off.

Cherry and plum trees are more easily injured by pruning than other trees. The wounds do not heal over readily. I hesitate about advising you to prune your plum or cherry trees if they have been planted longer than three or four years, provided they are healthy and vigorous. Where the plum tree is attacked with black knot, the portion of branches thus attacked should be sawed off, whether the tree is in foliage or not, and the black knots burned immediately. These black knots contain fungus which is liable to spread in the orchard, therefore the necessity of cutting them out without delay. At Green's Fruit Farm we are not troubled with black knot as our trees are young and vigorous. Black knot is more liable to attack old trees that have not received cultivation or attention.

A Suggestive Visitor From the Far Southwest.

A man who has long been a subscriber to Green's Fruit Grower and who says that he feels well acquainted with our editor, Charles A. Green, although he has never seen him, called at the fruit grower office yesterday.

This man says that after many years of experience in many portions of the west and southwest he has come to the conclusion that good productive farms, capable of producing fine fruit can be bought much cheaper in New York state than in any other part of the country. He says that sections of the western country where he has lived have suffered seriously from drought, and that there are other reasons, social and otherwise, that make farm lands in New York, Ohio,

Pennsylvania or Virginia, particularly attractive.

This man has come east to buy a farm but he says the farm must have upon it a large bearing apple orchard. His object in calling upon the editor of Green's Fruit Grower was to get the editor's opinion as to where he should locate and as to what he should pay for a good apple orchard farm in the fruit growing sections of New York state.

In reply I told this man that a few years ago apple orchards in New York state were not appreciated as a money investment. I knew of several large bearing orchards which were sold at from \$200 to \$300 an acre. The buyers of these orchards, which were sold to close estates of men who had died, were able to pay for the orchards in one crop of apples taken from the trees. Such experiences as this has led to higher prices for orchards in New York state, so that now my opinion is that there will be difficulty in finding a good farm with a large bearing orchard upon it for sale at anything like prices heretofore paid for such farms. I should consider this western man exceedingly fortunate if he should succeed in finding a farm of 10, 20 or more acres with bearing apple orchard upon it in the best fruit section of New York state at such bargain prices as have heretofore ruled. It has not been considered remarkable in some parts of the western states for apple orchards coming into bearing to be sold at \$2500 per acre. No such price as this has ever been asked or expected for apple orchards in the eastern states. Probably those who paid such extravagant prices for western orchards paid too much.

There has been a great boom in the price of lands, particularly of farms capable of producing fine fruit, throughout the western states of late years. While the price of farms in the eastern states has advanced moderately, they can still be purchased at what I consider bargain prices. I recently purchased a hundred acre farm for \$80.00 per acre. The buildings on this farm could not be erected for the \$8000 which I paid for this farm including the buildings. I know of other superior farms, the very best in this state, having been sold in the past year for \$115 per acre. The high prices asked for western farms has caused many western men to come to the eastern states to make purchases of farms for fruit growing and for other purposes.

Saving the Windfall Apples.

Written for Green's Fruit Grower by John E. Taylor.

There is no one phase of farming where there is such a waste as in apple growing. Thousands of dollars worth of standard fruit apples rot upon the ground that would otherwise make good feed for the stock, through the late fall and winter if care was used in gathering this fruit as it fell from the trees.

It has been considered in times past that sour apples were not good for cattle and other stock, but today it has been found that if proper methods are used in feeding apples they add perhaps not so much nourishment as an aid to digestion. Apples may be ground or cut up and fed with grain or with ensilage. The latter way has been found to be successful and works nicely in getting rid of the apples.

During the winter months the animals in the barn need something as a food cure and as an appetizer and the acids of apples take the place of this requirement that they get in the pastures during the summer.

FAMILY OF FIVE.

All Drank Coffee From Infancy.

It is a common thing in this country to see whole families growing up with nervous systems weakened by coffee drinking.

That is because many parents do not realize that coffee contains a drug—caffeine—which causes the trouble. (The same drug is found in tea.)

"There are five children in my family," writes an Iowa mother, "all of whom drank coffee from infancy up to two years ago."

"My husband and I had heart trouble and were advised to quit coffee. We did so and began to use Postum. We now are doing without medicine and are entirely relieved of heart trouble."

(Caffeine causes heart trouble when continually used as in coffee drinking.)

"Our eleven-year-old boy had a weak digestion from birth, and yet always craved and was given coffee. When we changed to Postum he liked it and we gave him all he wanted. He has been restored to health by Postum and still likes it."

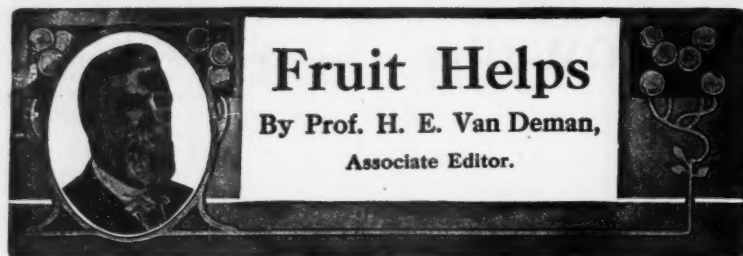
Name given by Postum Co., Battle Creek, Mich. Write for the little book, "The Road to Wellville."

Postum comes in two forms:

Regular Postum—must be boiled.

Instant Postum—is a soluble powder. A teaspoonful dissolves quickly in a cup of hot water and, with cream and sugar, makes a delicious beverage instantly. Grocers sell both kinds.

"There's a reason" for Postum.



Fruit Helps

By Prof. H. E. Van Deman,
Associate Editor.

Commercial Cherry Growing.

The cherries of Europe were brought here early in the settlement of this country and have been grown and tested in every part of it. That they succeed over a large territory there is no doubt, but there are regions where they do not succeed and these are where there are extremes of both heat and cold. In the southern mountains, where the summers are neither very hot nor very long, cherries of all kinds flourish but in the lower lands where cotton makes good crops, the summer seasons are too long and too warm. In the very cold sections of the north, such as the great wheat growing prairies, the trees are very apt to be killed by the severity of the winters. Violent changes in temperature are also very injurious to cherry trees and they are often seriously hurt by them, even in regions where cherry culture is considered a success. A moderately cool and never very cold or very hot climate is, therefore, the ideal one for cherry culture. These ideal conditions are found over the widest local range in Oregon, Washington and British Columbia. There is scarcely a part of the arable sections of that territory that is not suitable to cherries and they are grown there not only in the highest degree known to horticulture but in many places in a very large way. The Willamot Valley in Oregon is the largest solid area over which cherries are grown successfully, perhaps in all the world, but there are so many other sections in the Northwest of similar character that it would be quite tedious to enumerate them.

California has some very suitable places for growing cherries and the early market is supplied from them very largely, especially from about Vaccaville.

East of the Rocky Mountains there are far the oldest cherry trees that grow in North America and many of them are in the states bordering the Atlantic ocean. Some of the trees are of gigantic size for fruit trees, being fully 50 feet high and three or more feet in diameter of trunk. I have known more than 50 bushels of cherries to be the yield of a single tree in one year. Such trees are of the Mazzard or Sweet type, they growing to much larger size and I think greater age than those of the sour class.

THE SWEET CHERRIES.

The culture of sweet cherries has been kept up in North America from its early settlement to the present time, and yet it has not been done commercially to any considerable extent until within recent years. As has already been stated, the Pacific Coast has led in commercial cherry culture and especially in that of the sweet varieties. There is so much interest in it in some sections that there are cherry fairs held for the special purpose of showing what is being done to attract buyers of the fresh fruit and the manufactured products of the orchards as well, and to stimulate the business generally in an intelligent way. At Salem, Oregon, there is such an event, held annually, that is notable indeed. Exhibitors come from all parts of the Willamot Valley and from other regions, and the displays are not only extensive but beautiful in the extreme. The business deserves the efforts and they are well expended.

The orchards are planted in good soil and usually in the valleys and on the gentle slopes of the lower hills. The distance between the trees is, generally, about 30 feet but in many cases much less is given, which is a mistake, for the trees grow to large size where properly cared for. The bountiful crops which are grown well deserve the best of opportunities for development. Forty feet is none too much room for a mature sweet cherry tree. The variety most extensively grown is Napoleon, which is almost universally called Royal Ann on the Pacific Coast. It is quite large, pale yellow, with a suffusion of light red or pink that gives the fruit a very attractive appearance except in case of bruising. The flavor is a very mild sub-acid which is very pleasing to the taste and by some would be called sweet. The flesh is very firm, ending in handling well. The larger part of the crop of this variety is picked and sold to those who make what is called maraschino cherries. There are large quantities canned and also packed and sold in the fresh stall in the markets of the entire country. It is a common sight in the fancy fruit stores to see the boxes of this lovely

cherry with the rows as straight as those of a checker board.

In the course of the development of the cherry industry on the Pacific Coast, there were grown many seedlings by several intelligent experimenters, and as a result there were produced the Republican, Bing, Lambert, Haskins, Oregon and several other good varieties. All these are dark in color, the Republican being about black and the Bing nearly as dark. The Lambert is somewhat less so but is the largest of all. These varieties, especially the Bing and Lambert, are very generally grown and shipped all over the country in the fresh state and canned as well in the western factories.

In the eastern states there are so few places where the sweet or mazzard type of cherries really flourish that there is far less interest in their culture. There are some good orchards of them in New York but the majority are in Michigan and very largely in the northern part of the state. The Grand Traverse Region



Paul Rose Cherry Orchard, Elberta, Michigan.

is famous for its sweet cherries and it is there that the Paul Rose orchard was planted between 15 and 20 years ago. There are about 75 acres in the older part of it, a large part of the trees being of the sweet or Mazzard type. The varieties are May Duke, Napoleon, Yellow Spanish, Tartarian, Governor Wood, Purple Glean, Schmidt, Windsor and many others of this class that were planted as experiments. Among the latter are Bing and Lambert, which have proved to be almost entirely unfitted for that region because of the fact that they crack about the time of ripening. I have seen the trees of these two varieties loaded with fruit that was so badly cracked that it was not worth gathering and was left on the trees to rot. In a dry climate, such as is usually experienced on the western coast, there is very little of this trouble, but in all the eastern states there is more or less of it among the hard-fleshed cherries especially when it rains about the time of ripening. The soft fleshed kinds are but little affected in this way and Tartarian, May Duke, Schmidt and a few others are quite successful. Schmidt has flesh that is quite firm and as it is of large size, dark purple in color, and ships remarkably well; the tree being large, thrifty, and a good bearer, it is the best of all the sweet cherries for commercial culture in the east. At least this is the decision of Mr. Paul Rose and others who are growing it beside many other kinds.

THE SOUR CHERRIES.

The regions in which the sour cherries will succeed are far more numerous and extensive than those where the sweet kinds flourish. The trees are more hardy and the fruit does not crack or rot even in very rainy weather. There are not many sour cherry trees planted on the Pacific Coast because the fruit has soft flesh and does not ship well. The flavor being sour and of a peculiarly delicate yet pronounced flavor, it is especially adapted to cooking. Cherry pies and tarts and crullers are famous. No sweet cherry is fit for such use as the flavor is not piquant but too flat and insipid. Canned sour cherries are also excellent.

As the trees are of smaller size than

those of the Mazzard class they need less room in the orchard and from 20 to 30 feet is enough for them.

Over the larger part of the northern and central states this class of cherries may be grown for home use and commercially as well, and this fact is well understood by fruit growers. Yet there are fewer and smaller cherry orchards than there should be. The largest plantings are, so far as I know, in eastern Wisconsin, on the peninsula between Green Bay and Lake Michigan. The soil and climate there are both very suitable and orchards of 50 to 100 acres are not uncommon. The variety planted most extensively is the Montmorency. This is one of the later kinds and comes at a time when all seem glad to get the fruit. The trees are quite hardy, well shaped and bear enormously. The fruit hangs on without rotting or dropping even when dead ripe. Its flavor is of the most pronounced "cherry" character and is retained when cooked in any way. Richmond is earlier but is not handled so well without damage and is, therefore, of less value for market purposes. For home use it is a variety that should always be planted. Philippe is another sour cherry of value but not equal to the others named. English Morello is very late and bears well under almost all conditions and is well worth planting. The common Black Morello of the old times is another late and very good cherry. But the Montmorency is the best of all commercial sour cherries, so far as my knowledge extends.

TILLAGE.

Cherry orchards should be well culti-

cision. The sour varieties are usually packed in ordinary quart berry boxes or in small baskets. In all cases the stems are left on the fruit.

DISEASES AND INSECTS.

Spraying is a necessity in a cherry orchard. There are fungus diseases that prey on the foliage and fruit and insects as well and by intelligent and prompt action they may be kept under control. This is a part of the business and anyone who is determined to succeed can and will study out these enemies and overcome them.—H. E. Van Deman.

Answers to Inquiries.

Lemon Seedlings.

Prof. Van Deman:—I wish to ask about Lemon culture. I have three young trees about a third of an inch in diameter and nearly three feet high. When should they be budded or grafted; should the tops be cut back, and when; also, where can reliable grafts or buds be bought?—R. C. Minnich, Pa.

Reply:—Lemon seedlings may be budded same as any other little trees and judging from the description of the three seedlings they are about the right size to bud. If there are any good lemon trees in the greenhouses of the region it would be a pleasure to the owner to cut off a bud stick and give it to the inquirer, from which to cut buds for inserting. The Ponderosa lemon is a large but worthless variety but the Eureka or Villafranca are good kinds. If it is not possible to get good buds there, they can be had by sending a small fee to the Superintendent of our farm at Miami, Fla., Mr. Wm. A. Baker, and asking him to cut and mail the desired buds from one of our trees. They should be put in near the base of the stock and when well healed the seedlings may be cut partly off and bent over to induce the buds to start. When they have grown a few inches the tops may be entirely cut away close to the buds.

Walnut, Pear and Apple Inquiries.

Prof. H. E. Van Deman:—1. Is there more than one variety of Japan walnut? Can the original variety be propagated from seed?

2. Why are pear trees less subject to blight when French seedlings are used as stocks than when budded on American seedlings?

3. How would American seedlings from the seed of Kieffer pears, or from wild pears which are very resistant to blight, compare in respect to blight, with French seedlings as stock to bud or graft on?

4. Would top budding of young trees be as good at top grafting same, as in the case of Grimes Golden apple and several other varieties which are subject to bark rot where the bark comes in contact with the soil? Would it not be all right to set the bud, say about a foot from the ground on young seedlings in order to avoid bark rot?—Riverside Fruit Farm, Ind.

Reply: 1. There are two varieties of walnuts that have been introduced here from Japan, one called Juglans Seiboldiana, which bears a roundish oblong nut and having a very thick shell; the other is J. Cordiformis and bears a small heart-shaped nut with a very good but small kernel in it. Both make fine shade trees and are reasonably hardy.

2. I do not know that pear trees are really less subject to blight when grown on French than American seedlings, but it may be so.

3. Seedlings of the Kieffer pear might make good stocks, but I have never seen them tested in that way. Seedlings of the native Japanese pear have been grown in this country and used with some success for stocks, but have not always proved successful, because of lack of congeniality of wood. This class of Asiatic pear is more resistant to blight than any other I have seen tested and the seedlings are very vigorous. Some nurserymen use them now.

4. Top-budding young trees is as good as top-grafting them. I have done both with equal success and the budding was the cheaper plan. This budding or grafting is usually done about 2 to 3 feet from the ground, where the head of the tree is formed and several buds or grafts are set to make the main branches. This leaves the body of the tree of the seedling or any hardy or resistant stock that may be used.

Hot Water For Grubs.

One Pennsylvania peach grower uses hot water with good success in killing grubs pestering peach trees just below the surface. He digs away the soil until a few inches of the lighter bark appears, fills in the space with leaves or straw, which he removes by hand when the hot water is applied. It is claimed that if the water is applied frequently and abundant enough to soak the trunk of the tree well, not only all grubs are killed, but the tree will take on new life and bear better.

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Profits in Fruit Growing.

The writer and brothers, in 1894, planted 300 cherry trees, mostly Oregon, Black Republican and Royal Ann, with 50 Bing, and the next year 450 more, mostly Republicans. This orchard, allowing for missing trees, occupies about eight acres of ground and has been in fair bearing for ten years and in full bearing for about seven years, and has produced far over \$40,000 worth of fruit, gross, packed value, or it has averaged over \$200 net per acre for each of the last ten years, says Karl J. Stackland in Fruit and Produce Distributor.

Again, in 1898 to 1900, the writer double planted six and one-half acres to cherries, largely Lambert, Bing and Oregon, some Royal Ann, but no Republicans. This orchard has not been in actual full bearing till last year, but, nevertheless, has produced about 175,000 pounds of marketed cherries in the last five years that have netted me within a few hundred of \$10,000, or just about \$300 per acre per year on an average, or, in other words, has paid ten per cent. interest on \$3,000 per acre land. Now, this is not all to consider in connection with this or any other orchard, but it should be carefully noted that these last five years include the following kinds of seasons: 1908 the orchard had only a "fair" crop, and the markets were comparatively poor that year. In 1909 I had a light crop, but very good markets. In 1910 I had a good crop, for the age of the trees, and a GOOD market. In 1911 I had a light crop, but good markets, and in 1912 I had a very heavy crop, but badly damaged by hail and rain and only fair markets.

Therefore, with the average showing for the five years it covers about all the ups and downs for both crops and markets to be considered.

The above statements are absolute facts and can be proven to the satisfaction of anyone, and are not exceptions for a single season or a single acre, but a whole orchard and for many years. Why, in 1910 I netted \$7640 from nineteen acres of cherries and apples, netted, not grossed, and with ninety-five acres now in orchards, I feel sure of an equally good season for the whole thing if I live eight or ten years, as we will have several good seasons in every decade, and these alone make a very satisfactory average for the whole period.

Nobility of Farming.

It would be well for those who have depicted the farmer in song, story and picture to visit the prosperous farmer in his home. He has been maligned, ridiculed and caricatured, the result being an erroneous impression among people not familiar with actual conditions, having conceived him with a battered straw hat, unkempt beard, and coarse cowhide boots, says Robin Hood in Rochester Democrat. The farmer of to-day is intelligent, cultured and clothed in the latest patterns. He can mingle in the best city society, his polished manners defying the social expert to distinguish him in the cosmopolitan circle. The farmer of to-day, as well as the farmer of yesterday and the farmer of to-morrow, should command universal respect, for to him are human beings indebted for their living, and on him must they depend for their daily bread.

Raising Sheep Without Water.

That it is possible for sheep to go without water for months at a time appears from a recent circular of the United States Forest Service, which asserts that these animals in the Nebo national forest, Utah, go four and a half months without water except for such moisture as they get from the dew and the juices of forage plants.

"The area on the Nebo which has now proved usable by sheep is high and rocky, a portion of it being above timberline, and it has neither springs nor streams of sufficient size or accessibility to be used for stock-watering purposes. The grazing season lasts from June 15 to October 31, and during this period of four and a half months the animals do not get a drink. Under such conditions, however, the sheep have done extremely well, and last year's lambs from this range had an average weight at the close of the season of 68 pounds on the Chicago market, which was rather above the normal weight from that vicinity."

Pheasant Farm Run by State of Oregon.

Five thousand pheasants have been raised this season on the Oregon Pheasant Farm, of Benton County. Manager Gene Simpson, of the farm, states that a great number of these will soon be distributed over the state. Large numbers were ready for sending out some time ago, but have been awaiting orders from the State Game Warden. The birds will go to all sections of the state, but the greater number to those parts where the pheasant is little known. None will be given their

liberty except on designated preserves, so their protection will be guaranteed. In addition to the Chinese pheasants, a number of rarer birds, such as the silver and Reeves pheasants and the bob-white quail, have been raised this year on the farm. Most of these will be kept for purposes of propagation.

Big Fruit Growing on One-Sixth of an Acre.

Green's Fruit Grower:—I have a city lot 100 x 180 feet and on this lot I have 97 fruit trees and 7 Norway maple, 100 blackberry, 20 grape, 60 currant, 5 gooseberry and at least 3000 strawberries, besides the garden truck I raise after office hours each day. It is a diversion I love and a healthful change from office work. Though fifty years of age I can easily outwork any help I ever employed, for they can't stick. This morning at four o'clock while it was yet dark I took out some 300 tomatoes by the light of the city are light, put the stocks on the muck pile, harrowed the land good and deep, and sowed 15 pounds of crimson clover, which I do every fall to get the nitrogen and humus next May when I spade it under. I must spade it all for we have trees (the neighbors laugh and make fun of me)

E. F. Godfrey Grows English Walnuts in Connecticut.

That English or Persian walnuts can be successfully grown in Connecticut has been demonstrated by E. F. Godfrey of Meriden avenue, says The Southington News.

Eight years ago Mr. Godfrey decided to experiment with English walnuts, and obtained a two year old tree which he planted in his yard. As to the care of the tree, he got his information from "Green's Fruit Growers' Magazine," Rochester, N. Y.

The tree grew and was very thrifty, but did not bear nuts as quickly as he thought it ought, so Mr. Godfrey wrote to Mr. Green about it two years ago. Mr. Green replied to the letter and advised Mr. Godfrey to "sit tight" for a while longer and he would surely get results.

Today the tree is ten years old and about twelve feet high and is bearing its first nuts. The nuts ripen about the same time as chestnuts and those on Mr. Godfrey's tree are of good size and perfect formation.

Mr. Godfrey believes there is a future for the English walnut in this state and believes money can be made from them

spend money increases. Civilized life is not all made up of something to eat and wear, and the higher the civilization the more the beautiful things are admired. Ornamental horticulture is one of the ways in which the idea finds its way into use.

If New York State apple growers will pack apples as uniformly as Western apples are packed, much higher prices can be obtained. New York State apples as a rule are sold in barrels with fine fruit packed on the top and bottom, the center filled with fruit of inferior quality. Growers known to pack apples of a uniform grade receive the highest prices. The products of several up-state orchards are always in demand and purchasers prefer apples from these orchards at high prices rather than take chances with the fruit of unknown growers whose honesty they doubt, even though it is offered at more attractive prices.

Trees Instead of Grain. The Agriculture of the Future.

Agriculture of to-day, according to Professor J. Russell Smith of the University of Pennsylvania, depends chiefly upon the work of the primeval woman.

The nomad wife had for thousands of years been feeding her family on walnuts, chestnuts, acorns, almonds, apples, and cherries. There they stood, these trees, then as now the great engines of nature, producing to-day as no grains produce. At their feet stood a few feeble plants with one or two fat seeds. These feeble ones have become the food and the agriculture of mankind, not because they were especially productive or especially good or especially nutritious, but because being annuals, they appealed to the nomad's wife by giving quick return. Therefore we have improved them. Therefore we all eat bread made of grain. In depending upon these puny props we give ourselves great and often needless labor, and because of the weakness of our plant servants more than half the productive possibilities of the world are unattained.

Thus writes the Professor in Harper's, and he goes on to show that "the grains are weaklings all. They are so feeble that they must have the earth specially prepared for them." They have to be protected from weeds, and when the harvest comes it is often a mere handful compared with the yield of tree crops. In support of his claim that trees are more productive than grains, Professor Smith cites the chestnut orchards of Italy, whose yield per acre in nuts equals approximately in value the per acre yield of wheat fields in the United States. Also that "while the wheat lands must be plowed for each crop, the chestnut orchards have not been plowed in ten thousand years."—American Review of Reviews.



Six-year-old Coconut tree at Lake Worth, Fla.

12 feet apart. But you should see their faces when I take them in the pantry and show them some 300 jars of all sorts of fruits done up for winter (and you know who puts it up). My five children know what is a good square meal all through the long winter.

I just want to tell you something of what a man who is in earnest can do on one-sixth of an acre of ground. The experience I have had from this lot in the past ten years has taught me what I could have done had I had a chance on a farm, or at least on a thirty acre place of fruit. I have practiced budding and grafting on all varieties of trees and love to watch the young shoots respond. My boy of seventeen years has learned enough from actual practice to take hold of a fruit farm. My son planted a private hedge around my lot from cuttings we collected when a man cut his fence. From our hedge last fall I set out 3000 cuttings in a sand bed and sold 750 to one man for \$24.50 and 500 to another for \$12.50. One of our neighbors says \$200 could not buy the privet hedge my boy set out for him this spring. We use the same care and precision in the field that I do in my technical work in the office and it works out just as sure.—Pennsylvania Subscriber.

Remember your failures are the seed of your most glorious successes. Despond if you must, but don't despair.—Anon

if anyone went at it with the right spirit. Groves of over two hundred trees are paying good profits in New York state.

From New York Sun.

Charles A. Green, a veteran New York State nurseryman, says little is now done in putting up unfermented cherry juice, blackberry juice, currant juice, raspberry and elderberry juice for family use. A trade can be developed for all such juices. In Washington a drink is made of the Loganberry syrup and spring water. This berry unfortunately does not succeed in the region east of the Rocky Mountains, but is easily grown on the Pacific coast and in Great Britain. It is a hybrid between the Cuthbert raspberry and the trailing blackberry of the Pacific States and requires a peculiar climate. Elderberry juice makes a fine drink and the berries make a pie as good as huckleberry pie. When this fruit is known it will be cultivated in our gardens.

Nurserymen report a larger sale last spring of ornamental plants and shrubs than ever before in the history of the nursery business in this country. Prof. Van Deman explains the increased demand for ornamental stock by the fact that there is a tendency to improvement of country and suburban homes that will increase as education and the ability to

What are Post Toasties?

Thin, wafery bits of choice Indian Corn—perfectly cooked; delicately flavoured; then toasted to an appetizing golden brown, and packed in tightly sealed packages without being touched by hand.

"Toasties" are for breakfast or any other meal—served direct from package with cream or milk, and a sprinkling of sugar.

Post Toasties are convenient, save a lot of time and please the palate immensely!

But after all, a trial is the best answer.

Grocers everywhere sell.

Post Toasties



Pruning Suggestions.

Mr. S. N. Castle of Wisconsin asks several questions in regard to pruning. In reply I will say that we do not consider the question of the movement of sap in the trees in pruning. It is safe to prune trees at any time when they are not in leaf. Do not hesitate to cut out an occasional conflicting branch or any suckers that may appear on the trees at any time of year even though the tree is in leaf.

Correctly speaking, an orchard should be pruned each year. I mean by this each tree should be visited at least once a year to learn whether here and there a branch should be removed. It is not desirable that much pruning should be done in any one year.

It is hard work to make a tree low headed but it is easy to raise the head by cutting off the lower branches, but as a rule low headed trees are most desirable. High headed trees can be made much lower headed by dehorning them, which means by cutting off the branches, leaving only stubs of branches three to five feet long. This cannot be done with the plum and cherry but can be done with the pear, apple and peach and with ornamental trees.

Why Best Fresh From the Vine.

I like to go to my fruit garden the first thing in the morning before breakfast and pluck from the vine a few clusters of grapes and eat them on the spot. Grapes thus picked seem to taste better and fresher than those which have been gathered the day or week before and stored in the cold room of my house. This is not all fancy, for it should be widely known that fruits are best when they are cold. I had this fact presented forcibly to my mind when taking breakfast at a first class hotel in Buffalo, N. Y. The waiter placed before me an orange that had just been taken from the refrigerator where it was coming in contact with ice. It was almost as cold as ice as was evidenced by the fact that immediately water was condensed on its surface from the atmosphere. I thought this was the best orange I had ever eaten. I now know that its quality was greatly enhanced by its coldness.

You should keep your fruit in a cold room largely for the reason that it will ripen too fast in a warm room, but there is a further reason and that is that a warm apple, peach, pear or plum, is not such good eating as when cooled.

Dwarf Pear Hedge.

Editor Green's Fruit Grower:—In the October number of the Fruit Grower I notice your request regarding dwarf pear tree hedge row. Four years ago I bought a house and lot on the outer edge of town and the next year added a half acre to the rear. I then ordered fifty dwarf pear trees and planted them six feet apart and two feet in from the boundary line extending 121 feet on the north. I also planted 187 feet on the west. They have grown rapidly, make a good wind break and bore some fruit this year. I got the idea from your suggestion and would not take \$100 apiece for them now. They virtually take up no extra ground, that is no more than a fence would. I advise every one having a small piece of ground, even a town lot, to plant a hedge of dwarf pears along the border.

In regard to the mulch question in your last issue, I agree with you regarding sod as a mulch. I also save all my coal ashes and use them as a mulch after sifting out the coarse cinders. They hold moisture better than banking up with ground.

I am an advocate of the land roller wherever practicable, especially in the spring after all chance of ground freezing is over. The freezing heaves up the ground and leaves the roots exposed to the air and sun. I have a lawn roller with which I roll my strawberry patch in early spring. This settles the roots firmly in the ground and is a great benefit. I believe every farmer should roll his grain field and meadow every spring. This is best done early while the ground is still pretty wet. If not done until the ground is dry a great many roots will already have been injured, besides the roots will be more thoroughly pressed back in the ground if it is moist.

I want to ask you why it is that where there is a hard beaten path in a garden or field one will always find more moisture in the path during dry weather than out in the field, yet one is advised to loosen

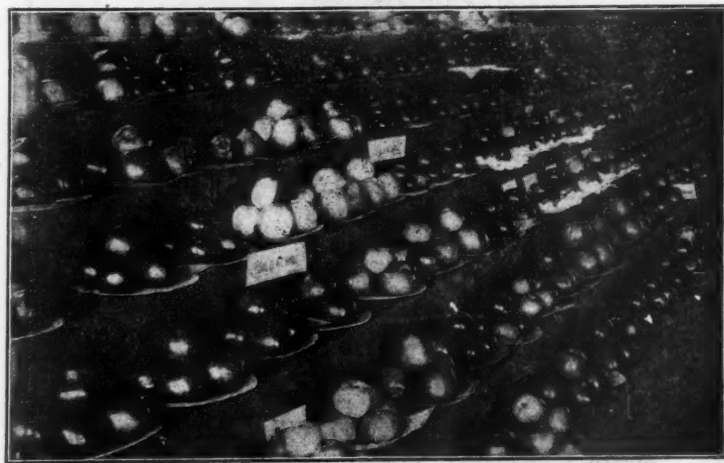
up the ground in order to secure more moisture. I have also hunted the angle worm in dry weather and could most always find them under a hard beaten path.

I have ten Abundance plum trees bought three years ago. They have attained a height of ten feet or more.—Geo. W. Hayman, Pa.

Will the Farm Pay?

Last spring the editor of Green's Fruit Grower bought a new farm near his other fruit farms near Rochester, N. Y. This farm comprises 100 acres of hill and valley, nearly all capable of cultivation and particularly suitable for orchards. Now the question arises, Have I any evidence that the farm is a profitable purchase?

Previous to my purchase the farm was leased at \$450 a year. This did not yield much profit after figuring the interest, taxes and necessary repairs. This year it is estimated that about eighty tons of hay have been cut from this farm, which



Photograph showing part of the exhibition of apples grown in California.

at \$15.00 per ton would amount to \$1200. Now figuring the interest on the investment and the taxes at \$400, and the labor, etc., at \$500, which amount to \$900, leaves a surplus of \$300 for profit, and yet there are other crops growing upon the land which I will not attempt to consider at present, including oats and corn, many fruit trees planted, and the product of a small old orchard. With this brief summing up of the prospective profit of this farm I am perfectly satisfied that it was a good investment. But I shall make this farm far more profitable for the years to come by planting on it more extensive orchards and berry fields. I estimate that the large house, large enough for two families, the large and almost new grain barn capable of storing all the grain grown on the 100 acres, and the horse barn and hennery could not be built today for the price that I paid for the farm, buildings and all.

It is my opinion that many farms in western New York, which is one of the most favored sections of the world, can be purchased as I purchased this for about what the buildings would cost if erected new today, and yet the average price paid for these farms is about \$100 to \$125 per acre.

Comparative Quality of Different Varieties of Pears, Peaches, Apples, Grapes and Other Fruits.

Sometimes we unexpectedly run up against facts that astonish us. Here is an illustration of my thought. I recently handed a friend of mine a large and beautiful Bosc pear, calling his attention to the fact that it was of superior quality as well as possessed of beautiful shape and appearance. This intelligent and highly respected friend remarked in reply that he feared the Bosc pear would not be so good in quality as his Duchess pear. He said he had a Duchess pear tree on his place that bore delicious fruit. Now, as most of our readers of Green's Fruit Grower know, the Duchess pear is not claimed by fruit growers to be of high quality. It cannot compare in quality with the Bosc, Sheldon, Seckel, or even the Bartlett.

Once while attending a meeting of the American Pomological Society at Cleve-

land, Ohio, I happened to mention a variety of grape which I deemed of much better quality than Concord, when a local member arose and to my astonishment made a claim of high quality for the Concord grape.

These and many other similar circumstances and expressions of opinion as regards quality of different fruits leads me to conclude that the public does not possess a general knowledge of the quality of various kinds of fruits.

The only way by which we can decide between the quality of two fruits is to first eat one and then the other within the same few moments. If you eat one specimen today and the other next week you may not so easily decide between them. Therefore I asked my friend to test the Bosc pear with the Duchess pear side by side. He said he would do this and get his wife to help him in deciding between the quality of the two varieties.

There is as vast difference between the quality of different pears and different apples, peaches, plums, cherries, and between different varieties of the small fruits, such as the strawberry, blackberry and grape, as there is between sweet corn and ordinary field corn, or between Hubbard squash and the ordinary summer squash, or between a ripe watermelon and an unripe watermelon.

One reason why inferior varieties of fruits are grown is that they can be produced cheaply, being great bearers, and that there are so few who appreciate the high qualities of varieties which in many instances do not produce quite so abundantly as those of inferior quality.

The fact that some of these wind-falls may have a worm hole or some other slight defect will not prevent these city people from enjoying such fruit, a bushel of which will often go just as far as a bushel of higher grade apples.

There is yet much to be learned by our fruit growers in the management of the fruits which they are producing so abundantly about reaching markets, about peddling, about commission houses, where to ship fruit and how to find a home market. Help must come to these fruit growers largely from horticultural publications similar to Green's Fruit Grower. We editors keep driving at this subject, feeling often that we make but slight impression upon the minds of our readers, but nevertheless encouraged enough to keep giving what we deem to be wise counsel.

By giving the name and address of our correspondent who wants a few barrels of apples I fear we will flood him with letters, nevertheless we take our chances. He need not answer more of the letters than he chooses. His name is B. K. Thatford, Sharon Hill, Pa.

Making Grape Vines Bear.

If those who have grape vines that do not bear fruit will drive an old-fashioned cut nail through the centre of the vine just above the ground at this date the vine will bear fruit next year.—J. B. Totten, N. J.

Editor's Note:—I have no experience with the above method of making grape vines fruitful. I have no unfruitful grape vines at my home or at Green's Fruit Farm. If I did have a grape vine that was not productive, which is a rare occurrence, I should be inclined to lay the blame on the method of pruning or to say that the variety was not a productive variety. Strong growing grape vines should be pruned differently from slow growing grape vines. On strong growers like the Niagara more bearing wood should be left and the vines should be allowed to cover a larger trellis. Slow growing vines like the Delaware grape should be trimmed closer, leaving less bearing wood than should be left on stronger growing vines. It is possible for a grape vine to be planted in such rich soil, or where it receives the drainage from the kitchen sink, as to induce a rank and vigorous growth of vines that is not productive of fruitfulness.

About Mineral Fertilizers.

Green's Fruit Grower:—We feel that if we could have a chance to sit down at the corner of your desk and talk with you and present a few of our numerous letters and testimonials you would have at least a growing interest in the matter of mineral fertilization.

We are always glad to read the Fruit Grower when it comes to our desk, but really, Mr. Green, you are doing your readers an injustice by advocating the use of nitrogenous stimulants when what vegetation needs is wholesome, nourishing plant food.

Dr. Cyril G. Hopkins of the Illinois Agricultural Experiment Station says in his article published first in the "Country Gentleman" and since then reprinted in booklet form, "Agricultural plants consist of ten elements known as the essential elements of plant food, and not a kernel of corn or a grain of wheat, not a leaf of clover or a spear of grass can be produced if the plant fails to secure one of these ten elements."

Another authority, and one which we consider a deeper delver and more thorough analyzer, is Dr. Edward T. Reichert of the University of Pennsylvania, who says, "All living matter contains hydrogen, oxygen, sulphur, chlorine, fluorine, nitrogen, phosphorus, carbon, silicon, potassium, sodium, calcium, magnesium, and iron. The abstraction of one of these elements means death to the organism." In other words, no vegetable or animal protoplasm can be formed that is deficient in one of these mineral elements.

As plants must obtain their mineral foods from the soil, and the soil is formed by the decomposition of rock matter, does it not seem feasible that finely powdered rock, if very highly mineralized, with a complete assortment of necessary minerals, can be made a valuable factor in agriculture? We ask this question as a hypothetical one before making our positive assertions that the same is true.—F. P. Pogg.

The Wrong Throat.

A little boy took an apple to school the other day and was playing with it. When the teacher saw him he took it from him and later commenced to eat it himself. As the boy saw the last piece disappear he began to cough violently. When the teacher asked him what he was coughing for he replied: "Please, sir, the apple has gone down the wrong way."

Two Good Christmas Stories.

An old time morality play tells the following story:

In a certain country was a little village in which lived a beautiful and lovable woman by the name of Eagleheart. Though her home was not a mansion but simply a little cottage similar to others in the village, she had received word that the king would refresh himself and rest at her home that night.

The woman, as might be expected, made great preparation for receiving the king, whom she highly honored. Her work of preparation had scarcely ceased when the shades of evening approached and there came a tapping at her cottage door. On opening the door Eagleheart found a plain looking man and his wife who was bearing in her arms a child. Neither the man nor his wife were remarkable in appearance or dress and seemed to be weary from long traveling on foot. The husband and father asked permission for himself, wife and child to remain at the cottage over night.

Eagleheart was distressed at this request and replied: "No, I cannot receive you to night. Come any other night but not tonight."

"But we are weary with our long journey and need your hospitality," replied the father.

"No," replied Eagleheart. "Come tomorrow, next day, next week, any time, but not tonight."

"This is the reply that all the people make," said the father. "They all tell us not today, not tonight, but some other time, some more convenient season."

Then Eagleheart was compelled to say, "I cannot receive you tonight for I have prepared to receive the king and he is coming. I have not room for both you and the king."

Then the father and the mother with her child started to move away. In doing so Eagleheart secured a better view of them. She saw something that touched her heart and she cried out in broken accents: "Come back I will receive you!"

Food was spread before the group of travelers and soon the babe was sleeping in the bed that had been prepared for the king. By this time Eagleheart began to wonder why the king had not arrived, for it was high time and past the time, so she walked out through the village, hoping to learn something of the whereabouts of the king or whether he had been seen in the village.

Eagleheart had passed through the principal streets and was at the further extremity of the village when she saw three travelers approaching followed by a crowd of people.

"Where are you going?" inquired Eagleheart.

"We are searching for the king," These travelers were the wise men who had come on a long journey following his star, which was to direct them to the house where they should find the babe that was to be the king.

Eagleheart wonderingly followed the travelers and their many followers, and strange to relate they stopped before her humble cottage. She rushed forward and exclaimed that it could not be that it was in her home where they should find the babe. But the wise men said that they had followed the star and that the star had pointed to her house. Thereupon the wise men and Eagleheart entered the dwelling. They found it a blaze of glory, and when the wise men reached the room where the babe was sleeping they knelt and worshipped the king.

The Other Christmas Story.

There once lived a wise clergyman. One day he preached to his people about heaven. He told how beautiful heaven was. Nothing on earth could be so beautiful as heaven. "We have beautiful parks, a beautiful country, beautiful cities with beautiful streets; there are beautiful sunrises and beautiful sunsets, but none of these things approach the beauty of heaven."

He told how happy people were in heaven. "Though there is much suffering in this world and wickedness; there is much happiness, much joy; but the happiness of this world cannot compare with that of heaven." After the pastor had preached this delightful sermon, a certain rich man approached him and said, "Pastor, you have told us about heaven but you have not told us where it is or how to get there."

Then the pastor said to the rich man, "I will tell you now how to find heaven. Just outside the village near the hilltop is a little weather-worn cabin which scarcely keeps out the winter's wind and frost. In this cabin lives a widow who is sick and too poor to buy food and clothes or coal with which to warm her house. She has two children who are also sick. She has no food. The little family are suffering for the necessities of life. Go to that house and very likely you will find heaven."

Some time later the pastor met again the

rich man and asked about his visit to the poor widow on the hillside.

The rich man replied, "I went to the poor woman's cabin. My daughter accompanied me. I carried her wood and coal, clothing and provisions. I lighted the fire. My daughter and myself did all in our power to cheer up the widow and make her comfortable. After we had done this I knelt in the little room and offered a brief prayer. I assure you, pastor, that at this time I was happier than I ever was before during my long lifetime. The wind was raging outside, rattling the windows, making music for my ears, seeming to say: 'This is heaven.' The fire crackled and glowed and the kettle upon the stove sang merrily, seeming to say: 'Here is heaven.' A half starved bird chirped a brief song, seeming to say: 'Here is heaven.'"

Making a Market for Apples.

Editor of Green's Fruit Grower:—The apple-growers of the Northwest are advertising the merits of their product to the world as they never did before, and at the same time a very encouraging move has been made in the way of distribution. There was never a time in the past when market facilities were quite what they are today, with the big selling agencies, thru their branch distributing points everywhere, selling apples in all parts of the world, yet the work we have started must be continued, and extended, if we are to have an adequate outlet for the increasing output of the coming years.

"The orange-growers of California have for years been spending money in an almost absurdly liberal way in the exploitation of their fruit, tempting the fruit consumer in every imaginable way, and they have had their reward. Now they are marketing something like 40,000 cars of oranges a year, and at generally good prices, whereas ten years ago 15,000 cars was about their limit.

"They have actually placed oranges within the reach of everybody in the country, with the result that oranges, once a luxury, now are a more or less staple commodity. By their action they have undoubtedly reduced materially the consumption of apples the country over, for they have everywhere put their golden hued fruit in competition with the slightly less attractive but far more valuable commodity.

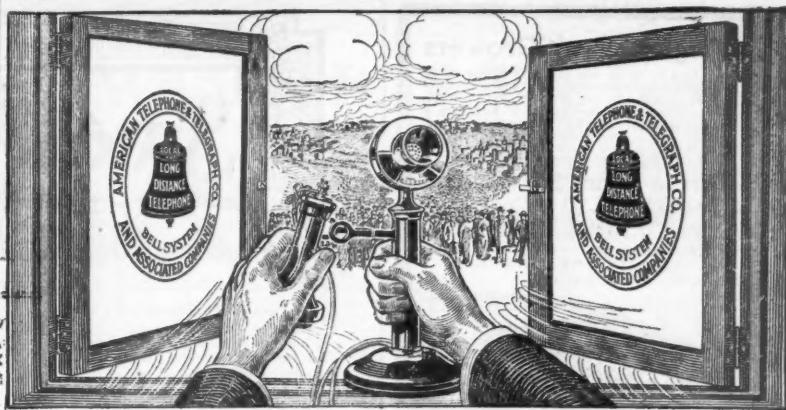
"It remains for us to place the apple where it rightfully belongs, in the first place among the fruits of the earth, and keep it there. That we have set out to do and we have every reason for believing we will accomplish our purpose. But in this work we cannot resort to any petty economies. We must be willing to sacrifice a little of our present profit in order to provide for the profits of the years to come."

"Like the old man in the Garden of Eden, the modern human needs only to be tempted," said an official of the Northwestern Fruit Exchange today. "Place apples within the reach of the people—of course I mean apples of the right sort—and they will begin eating them; in a rather desultory way at first, but in a more business-like way later, for apples beget an appetite for apples. With that accomplished, you have a demand, a market, for apples where none existed before."

Now, beyond any question, the apple is coming into its own, and as in the case of oranges in the South, it is necessary that has developed the old markets and created new ones. In the steadily increasing trade reported by our agents at points in this and other countries where apples hitherto have been more or less a rarity, there is evidence of a returning taste for the best of all fruits.

A Colorado Woman's Fruit Growing.

Mr. C. A. Green:—I have taken your magazine for several years and could not get along without it, as I get lots of good information from it. We have a small place and have set out a lot of fruit. We came here a little over 10 years ago and there was an orchard of Jonathan and Ben Davis apple trees one year old here. I should guess there are 100 trees, one-third Jonathan and the rest Ben Davis. They are bearing fine this year. Last year we set out 300 fruit trees, 150 late apples of five different kinds, and we set cherries between the apples; 50 English Morello, 25 Governor Wood, 25 Montmorency, 12 May Duke and the rest in Early Richmond. The trees are doing fine so far. We have a small orchard of all kinds of early apples about 50 trees in all, they are just beginning to bear. We have 50 gooseberry, 200 currants bushes, a row of red raspberries and an eighth of an acre of strawberries. I am greatly interested in raising strawberries. We have a heavy clay soil and it is hard sometimes to get things started in it. My strawberries are Senator Dunlap and Captain Jack. I find the Senator Dunlap is not a good berry to ship. Can you name a good berry? (Yes Brandywine and Sweetheart). Subscriber, Colorado.



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are close to many big markets where their products find ready sale. It is the finest fruit-growing and farming country in America. Mild climate, abundant rainfall—average 4 inches monthly in 1913—fertile soil, excellent transportation facilities. Conditions here are ideal for fruit growing, dairying, stock raising, trucking or general farming.

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OUR OFFER—Send 50 cents for a year's subscription to Green's Fruit Grower and the "SURE-OPENER" will come back to you by return mail.

GREEN'S FRUIT GROWER

ROCHESTER, NEW YORK



A Feel in the Chris'mas Air.

They're a kind of feel in the air, to me,
When the Chris'mas-time sets in,
That's about as much of a mystery,
As ever I've run agin.

Is it the racket the children raise?—
W'y no!—God bless 'em!—no!

Is it the eyes and cheeks ablaze—
Like my own was long ago,—

Is it the beat of the whistle, and beat
O' the little toy-drum, and blare
O' the horn? No! No!—it is just the sweet,
The sad, sweet feel in the air.

—James Whitcomb Riley.

Grape Vine Training.

Around city homes where there is room for only a few vines, they are often trained on porches, fences, outbuildings, trees, etc. When there is sufficient space an arbor is a good and attractive support, making the vine furnish a shady bower or walk, as well as fruit. In vineyard practice only a stake or post on which to train each vine, is used by many growers. A

which is cut back, leaving a cane and a spur on each side, and the canes are tied to the lower wire on the trellis. The fruiting shoots growing from the canes are trained upright and fastened to the wire overhead. This system is the one most generally practiced in the training of American grape varieties. Vines trained by this system can be easily laid down and covered in winter in the extreme northern sections. A small amount of wood is left in pruning healthy vines and a good quality of fruit is obtained.

The Grape Crop short in the Dunkirk Grape Belt

It is estimated that there will not be over 3,500 carloads of grapes from the Dunkirk or Chautauqua grape belt along the shore of Lake Erie. I passed through that section last August and noticed that the vines were not showing their usual vigor. I was told that the grape worm, which



A Happy Christmas Time at the home of a subscriber of Green's Fruit Grower.

support very generally used on which to train the vine consists of substantial posts of durable timber planted at regular intervals, the distance apart varying with the different grape varieties and the distances between the plants. To the posts sometimes only two, but generally three, strands of No. 10 or No. 12 wire are fastened, the first, second, and third wires being 24, 40, and 56 inches, respectively, from the ground. The end posts of the row should be firmly braced.

In the high-renewal or upright system of training, all the season's growth is cut off each year except the head of the vine,

eats the roots of the grape, was doing serious injury to the vineyards of that section. The shortage this year is about 50% of an average crop.

Leaf hoppers have done some injury but not so much as the root worm. Attention is called to the late spring frost which is thought to have done some injury to the fruit in killing some of the fruit buds. Others claim that the vineyards in this section have not received as good cultivation this year as usual.

Dr. Bailey Brings Encouragement to Fruit Growers.

In reviewing the progressive changes that have taken place in agriculture during the twenty-five years that he has been identified with the State College of Agriculture, Dr. Liberty H. Bailey said that at the beginning the farmers had little help in fighting insect pests and in solving their other problems, but they have come to have a feeling of mastery over the problems of the farm. "No one can come through the orchards of Western New York, without feeling that the men who own them have the power to conquer their orchard enemies." Referring to the special agricultural schools, Dr. Bailey said: "Now that I am out of the college of agriculture I feel perfectly free to say that I do not approve of these special schools of agriculture. If maintained at all, they should be maintained for region instead of for localities. The state should develop a definite programme for the education of agriculture, and it is much better to use the public school system effectively than to establish a few special schools for particular sections and problems."

Dr. Bailey does not think the Eastern fruit growers need be frightened because of Western competition. Any fruit grower in this state who is not afraid to fight a San Jose bug need not fear the Northwest. The Eastern growers need simply to keep on producing fruit of the best quality and they will have little competition with the growers three thousand miles away. He urged every New York state farmer

who had a good farm to stay on it. "Agriculture is coming into a new era. You have been passing through an epoch of meeting professional difficulties. Now you have the economic problems of marketing. This is not to be solved by government, nor by commission, but by the farmers. Co-operation means working together. If you are to market your crops successfully you must take an important part in marketing them. You must understand the laws of trade. The place to begin to discuss co-operation is at home. You have got to work out your own problems in the terms of your own conditions."

The American Pomological Society.

Those who attend the biennial convention of the American Pomological Society, to be held in Washington, D. C., 17th to 22nd, will have an opportunity to examine the largest number of varieties of fruits and nuts ever assembled in any one exhibit in the country. Especial attention has been given to securing specimens of the newer sub-tropical fruits which have been recently introduced into the country, says Frederic J. Haskin in Union and Advertiser. These have been experimented upon chiefly in Florida, California and Arizona, and some of the results will be placed upon exhibition for the first time by the Pomological Society.

The newest of these fruits is the cherimoya, a native of the Philippine Islands and South America, which has lately been successfully introduced into Florida.

Another new fruit is the papaya, which has become well known to the American workers upon the canal zone, where it is native. It has long been grown in Florida, but no attention has been paid to the fruit. The papaya is a melon-like fruit, with a deep orange tinted flesh.

The American Pomological Association was organized seventy-five years ago and is still governed by the constitution adopted in 1852. Its object has been the advancement of pomology, which has been recognized as its higher branch of agriculture.

When the society was organized, in 1848, the fruit products of the country included little more than the apple, peach, pear, plum, cherry and several varieties of berries, and the range of these was restricted to narrow sections. Largely through the influence of the society, the apple has extended its growth into almost every state in the country and the peach range has been broadened far beyond its original confines. Now they include almost every important fruit grown in the world and many new varieties of these have been developed. The evolution of the fruit growing industry of America largely may be credited to the efforts of the Pomological Society.

Co-Operative Fruit Growing in Nova Scotia.

Four years ago the fruit growers of Nova Scotia found that they were hampered in many ways in disposing of their crop. All shipments to Europe were then being made through commission agents, who in turn consigned to merchants in London and Liverpool, says The Free Lance.

In this way, expenses in some cases exceeded profits.

There was also a lack of system in sorting and packing so that the fruit did not have the standing in the big markets it should have had.

In order to overcome these difficulties local co-operative associations were organized at three points, but these were not altogether successful.

In 1911 a central association was formed which included the smaller ones, and this association handled 400,000 barrels.

Later a larger co-operative central organization was formed, known as the United Fruit Companies, with a capital of \$5,000 in 50 shares, the capital afterwards being raised to \$11,000. Each member of this association must have one share and no one is allowed to have more than five shares. The fruit of each member is gathered by himself and after sorting is taken to the warehouses of the association, of which there are five. Here the fruit is re-sorted and properly packed under the direct supervision of a general manager, the discarded fruit being taken to the vinegar factory.

For re-packing and supervision the grower is charged five cents per barrel. In this way uniformity of pack is secured and the fruit is handled in a wholesale way.

As a still further advantage, supplies, including fertilizers, are purchased in a wholesale way as well. As a result of co-operative purchasing the price of barrels has been reduced from 40 to 28 cents and 30 cents. Later on the association expects to make its own barrels. The general manager receives \$4,000 a year, but out of this he is expected to pay the wages of the men employed in packing.

During 1912 the association handled 600,000 barrels.

When I Am Old.

Naught would I ask of selfish ease,
To sit and idle through the hours
Beside the hearth or 'neath the trees.

Counting the years I dare not pray
That I may hold intact the powers
Which make my life so blessed today.

But I implore the strength to keep
A deep and ready sympathy
With those who laugh and those who weep.

And I would crave discerning eyes,
The beauty of the earth to see,
The glory of the evening skies.

Give me a joy in all things gay,
And set me not so far apart
I may not hear the children play.

And when my vesper song is sung,
Grant me, O God, a youthful ease,
Let me remember I was young.

—Florence L. Patterson, in National Magazine.

How to Secure Better Markets.

Written for Green's Fruit Grower by
J. S. Underwood, Illinois.

The way to get better markets is to grow better fruits and produce, and then pack these properly. The way to destroy a market is to try to beat somebody through snide goods and snide packing. Over production of dependable goods is an utter impossibility; and he who cries "over production" as being the cause of low prices does not fully catch the meaning of what I am saying here.

It should be understood, first, last and all the time that there are thousands of people clamoring for quality in everything they buy; and quality people put price as a secondary matter in their purchases, the aim being to get what they want, regardless of price. Such people, too, are in excess of the goods produced, as is proven every day in the markets of the cities. These people are the ones who are going to know before they buy that

which accounts for the rapid increase of successful farmers' elevators.

A successful Long Island farmer sows alfalfa in rows one foot apart and cultivates it while growing. The yield is from three to five tons an acre on a sandy soil.

If some genius could put a seat on a hoe it might become popular with farmers. As Sam Saxon says, it is hard work nowadays to sell a farmer a farm tool that hasn't a seat on it.

Right now is a good time to set apart a day or two for fixing up all the buildings, fences, machinery, and such things that need fixing. Keeping everything in good shape is the trademark of the successful farmer.

"One acre of alfalfa," says a practical Iowa farmer who has studied the crop on his own farm for several years, "will bring up the fertility of three acres—the one in alfalfa and two others. Feed the hay and sow the manure."

I've seen farmers get up early in the morning, feed, curry and harness the horses, clean the stable floor and throw the manure out of the barn window, to leach and to burn. Then, after breakfast, drive to the station and buy commercial fertilizer!

The soy bean has some advantages over cowpeas. It stands extremes of wet and dry better. There is less loss of leaves in handling as hay. The seed cracks less in threshing, and is richer in protein and fat. It is a better nitrogen gatherer. Cowpeas, however, make a better growth on poor soil.

Provide Good Feed and Water.

Dairying, in my opinion, is among the best paying propositions for any farmer if properly handled, says N. J. Nelson in



Fig. 2-A. Barrel of apples as it reached market.

Fig. 2-B. Head removed showing corrugated apple-barrel cap.

Fig. 2-C. Properly packed.

a box or barrel of apples is as good where it don't show as where it does show; and when they find this to be so, their money is easy.

This condition applies only to No. 1 and fancy stock, no matter what the nature of the goods may be. Then, too, it is surprising to find how few there are among producers generally who really understand what is meant by "Fancy," "Firsts," and "Seconds" in the grading of fruits and produce. Ignorance as to this is every where evident when inspecting goods on the average market. For instance, Smith grades what he has to offer as fancy's, firsts, and seconds; and his goods may distinctly show the three grades, yet all may be mighty poor, from no other cause than that he had a bad lot to start with, his fancy's being no better than his neighbor's seconds. These irregularities are what stunts markets and blights the hopes of both producer and consumer alike. This is one of the traps that some producers are continually setting to catch themselves in, then whine and complain because they were caught.

Markets cannot grow and thrive on such procedure. We expect good money for our goods; then, if so, we have no moral right to try to pass counterfeit goods off for sound legal tender. Uncle Sam stands back of the latter, and so it is up to us, as producers, to guarantee the former.

Notes From Up-to-Date Farming.

It is a mighty poor farm that has no specialty.

What dynamite will do to stumps, rocks, and hard pan is sufficient. Try it.

If you have fall plowing to do follow the plow until the ground freezes. You can't plow frozen soil, but you can husk corn any time.

While the United States produces three-fourths of the corn grown in the world, it raises less than one-fifth of the wheat.

It is not a good plan to seed alfalfa with wheat. It will not hurt the wheat, but tends to lessen the chances for success with the alfalfa.

The farmers of the north and central west are acquiring the science of business,

Northwest Farmstead. Those having a sufficient acreage to raise their own feed, of course, can make it more profitable than he who must buy. For my part, I raise all I need and a little besides, especially when the crops are good. A milch cow needs to be well cared for in order to produce the best results. A good, warm, well ventilated barn in which to be housed in the winter, and plenty of clean water and pasture during the summer, will keep her in good health and enable her to work at her utmost capacity. It has been my experience that when milch cows are compelled to drink dirty water during the summer, it will be apt to bring bad results in the fall and winter. Feeding a healthy animal improper food and providing poor drink is most certain to result in a loss. I have handled milch cows as suggested for 20 years, and never have had an animal get sick, nor show any symptoms of illness caused by careless feeding or poor water. In fact, I have not lost a single cow during this entire time.

I raised nearly all the calves, endeavoring to keep up my herd by replacing the old cows as they become unprofitable. The bull calves I sell for veal. Best plan, to my knowledge, is to raise them on skim milk. This is given as soon as they are removed from the mothers. In addition to skim milk they are given a small amount of ground corn and oats, and I never experience any trouble at all in bringing them up this way. The dairyman should always endeavor to keep the cows and sire healthy, and if he has good quarters for his herd he invariably will have a good crop of calves. When dairying is handled wisely and on a business-like basis, it proves one of the most profitable industries in connection with general farming.

A Quiet Evening.

"George," she asked, "if we were both young and single again, would you want me to be your wife?"

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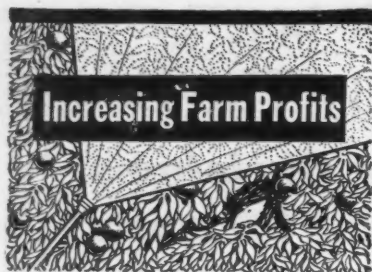
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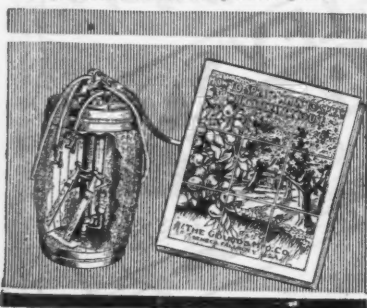


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FARM DEPARTMENT



Farms For City Men.

Mr. C. A. Green:—I frequently see inquiries in Green's Fruit Grower asking advice on various subjects, especially concerning city men going to the farm to make a living. All men should realize, after serious consideration, that it is not expedient for a conscientious editor of a reliable and valuable publication to give positive and unconditional advice to men who are not imbued with enough determination and unswerving energy to put forth whatever honest efforts they desire to make, regardless of contrary advice from well meaning friends, relatives, etc., which is generally useless, often discouraging, and seldom thoughtfully given. God never made two men exactly alike. Conditions of life are also often as diametrically opposite as men themselves. One man may be ever so capable of transforming himself from a city craftsman or bank clerk into a successful farmer, yet his wife, however anxious to assist her husband in making life a family success, would find the country with its supposed isolation, intolerable. For such a woman a suburban home, surrounded by several acres of land, a sweet scented garden well filled with vegetables and flowers, with

make a note of it for future reference in a book kept for that particular purpose.

Read every article, every month, in Green's Fruit Grower. Cut out every article that is of particular value to you, (and there are many) make yourself an index of subjects, what page any certain subject may be found on, and file them. I know from experience how valuable they are. You will refer to them many times in the future, I am sure. Subscribe for one or two other farm and fruit grower papers. Read them all. It pays. Write to your state experiment station and get on their free mailing list. Ask them any question you are interested in concerning farm crops and farm management and you will get a condensed and valuable reply. I advise the following books, mainly because they are of especial interest to me: E. P. Powell's "How to live in the country," "Country life," "Orchard and fruit garden." Cyril Hopkins' (Illinois University) "Chemistry of the Soil."

Elementary chemistry is of great interest when one acquires some knowledge of this science. It is helpful but not essential to successful farming. Many successful farmers know nothing of the



An Inexpensive Hog House. As can be seen this hog house and yard is constructed almost wholly from odds and ends found around the farm. But the quarters are ideal for the family porkers. The location is high and dry, so there is no mud and muck, often seen in pig pens and yards. There is plenty of sunlight and some shade. The house is well lighted and is kept clean and plenty of good dry bedding is supplied. Elaborate fixtures never count so much as good care and common sense.

tree and bush fruits not omitted from the larger grounds, would doubtless in a year or two prove a source of joy and real comfort. Ultimately she might acquire such a real liking for the bosom of mother earth and her bountiful annual harvest of grain, fruits, vegetables and flowers, that she would gladly and bravely accompany her husband and family to the larger fields, fields of undulating grain, of cattle, sheep and hogs on the green hillside, and the brook that murmurs softly as it winds its way through field and meadow.

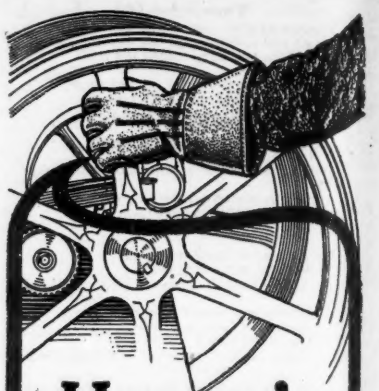
On the other hand if I should like to move into the country, even if I had had no experience as a farmer, fruit grower or gardener, and had my wife's entire cooperation, I should not hesitate but make an honest effort, providing that the desire to go to the land was deep seated and sincere. No sporadic or transient notions (often induced by a sudden pleasant talk on a farm subject) should be considered. The desire must be firm, time tried to some extent and made with the full knowledge that if we go into the country we will find very much to learn in our new role as husbandman. Nature's laws are gentle, firm, but unchanging in their course. We must allow ourselves to be taught by them, and work with them hand in hand. Be a firm believer in God's goodness and His interest in you and your family. Keep your eyes wide open and observe what is going on in the realms of God nature. Conform your work to His laws, be persevering, and His bountiful store house will be opened unto you. Incidentally, before you move into the country talk farming whenever you have an opportunity with some one of experience. Advance some opinions of your own, if you have any worthy ones on the subject. Even if they conflict somewhat with the other fellow's they promote healthy discussions and you get ideas. When you learn something really valuable

chemical composition of the soil that has made them well-to-do. Some one has aptly said that the difference between the weak and the powerful is energy—invisible determination—a purpose once formed and then death or victory. Energy will do anything that can be done in this world. I would add, by mortal man. Listen to advice. It costs nothing and is generally worth it. We need not look upon it with suspicion nor take it too literally. Most men unintentionally paint in glowing colors when they discuss subjects that live now in the glory of bygone days. Distance lends enchantment to accomplishments as well as views. Think and ponder. The country holds many advantages over the city; better health, generally better society, more wholesome food as a rule, and a longer opportunity to make one's own living. A man of sixty is generally handicapped in the city for younger men are sought for most work. There are some notable exceptions. I know men, much over sixty years of age, who are fully abreast of these exacting times. When all is said and done I may add that I know city men who have made good in the country. I see men every day who have left the country to work in the city and are making but an indifferent success. I must conclude that it depends more upon the man than on conditions.—George Flesner, Ills.

From British Columbia.

Mr. C. A. Green:—Dear Sir: First copy of Green's Fruit Grower received and it comes like an old friend. I used to read it many years ago on my fathers farm back in Nebraska. It was good then in its old dress, but it is much improved now.

This part of B. C. grows fine fruit, such as apples, pears, plums, strawberries, raspberries, and currants, where there is room to grow them, but the country is most all mountains and the valleys are small.—J. F. Layson, Can.



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When you write advertisers Please mention Green's Fruit Grower.

Winter Protection for Trees, Etc.

Written for Green's Fruit Grower by
F. H. Sweet, Va.

In most parts of the United States the fruit garden needs winter protection. In the extreme northern states this is needed to make possible the culture of such fruits as the peach, apricot, raspberry and grape. In the central states winter protection is needed for fruits like the fig and Japanese persimmon. In the southern states protection is very often desirable for tropical fruits, as the pineapple and mango.

The protection of plants from winter injury involves, first of all, a consideration of the site. In the same locality may be sites on which apricot buds will be winter killed every year, and other sites on which the buds will not be injured. If tender fruits are planted, try to give them a sheltered spot, and avoid a bleak exposure. The soil may also have much influence on the hardiness of the fruits. Most plants are less likely to be injured by cold when grown on light dry soil than when grown on heavy moist soil. This is principally because the heavy moist soil promotes a late growth of the tree or bush, so that it goes into the winter less mature and less ripened than plants grown on poor soil.

The care that plants receive also has much to do with their hardiness. Trees headed low are less liable to winter injury than high-headed trees, especially winter injury of the trunk. Neglected, stunted, diseased and poorly nourished trees, plants and vines are more liable to winter injury than vigorous healthy plants.

Other points that may bear directly upon this subject are late tillage, the cover crop, hardy stocks and hardy varieties. Tillage and irrigation late in the season make fruit plants grow late and send them into the winter in an immature, hence a tender condition. More than one fruit garden has been ruined by late tillage. The treatment of the fruit garden in winter has much to do with the liability to winter injury. Root killing is a common and very serious form of winter injury, especially in the interior states. Frequently the roots of bearing trees are killed, while the tops, for the most part, are uninjured. This means that attention should be given to the hardiness of the stock as well as the bud or scion that is put into it; hence "own-rooted" trees of known hardiness are popular with experienced growers. The Western sand plum is being used somewhat as a stock for cherries and plums on account of its hardiness. Trees are more often root-killed when the ground is bare over winter than when it is covered with weeds, a cover crop or sod. The increased use of cover crops and the sod mulch is due nearly as much to their value for preventing winter injury, as their value for adding humus and fertility.

Varieties differ in hardiness as much as they do in vigor, productiveness and quality. Patten's Greening apple bears gratifying crops where the Baldwin fails; the buds of Gold Drop peach are uninjured, where the buds of the Early Crawford are killed; the canes of the Snyder blackberry pass through the winter safely where the canes of the Agawam are killed to the ground; and so on. Each of the common fruits has hardy and tender varieties, and the difference in hardiness is often considerable. Hardiness may be even more desirable in a variety for the garden than high quality.

If the location of the fruit garden is irrevocably fixed where the winters are cold and bleak, or if the site is necessarily exposed to the sweep of the winds, something may be done to protect the tenderer fruits by a windbreak. Anything that checks the wind is a windbreak; it may be a stone wall, a board fence, a hedge, or a shelter belt of trees. The use of a hedge, wall or fence for this purpose is confined mostly to the protection of small fruits or low-growing tree-fruits. Low hedges are quite common around fruit gardens on the prairies where the wind hugs the ground. In the Eastern and Northern states windbreaks of trees are most frequently used.

If the fruit garden is exposed to very strong prevailing winds of any sort, it will probably be wise to shelter it. In all cases the windbreak is placed on the side from which the prevailing winds come. In but few cases is it best to entirely surround the fruit garden with a windbreak; this would be likely to make it cold and frosty, as the air would stagnate there. Provision should always be made for air drainage.

A rather expensive method for affording protection to tender fruits, but one that is entirely practicable in many Southern fruit gardens, is to cover the plants temporarily with a light shed or with canvas. Pineapples, oranges, figs, and many other fruits of like nature are handled in this way. Low-growing trees or shrubby fruits may be protected by covering the tops with pine boughs or matting, or by wrapping the limbs with straw.

Small fruits are more easily protected than tree fruits, on account of their low stature. Grapes trained in the fan system with several renewal canes growing from the roots each year, are most easily laid down and covered. In most other systems of training the canes may be laid down and covered, if soil is taken away from one side of the roots. It may be enough in some cases to merely bend down the canes and place prunings on their tips, to hold them down. When grapes need to be laid down, they should be pruned in the fall.

The bramble raspberries, blackberries, dewberries and the like need to be entirely covered with soil in some sections; in other places they need to be laid down, but not covered, except at the tips. In laying down branches, soil is dug from beneath the crown on the side toward which the canes are to lean—preferably the north—and the canes are crowded over with a fork, and by stamping. If the climate is especially trying, the canes are covered entirely—if less rigorous, the tops may merely be held down by a few shovelfuls of soil on the tips. Care must be taken to raise covered canes in early spring, before their buds start into growth.

Such low-growing fruits as currants and gooseberries are easily protected by covering the tops with a straw mulch. In the covering of strawberry plants for winter protection, wait until the ground freezes before applying the mulch, so that the plants do not start into growth too early in the spring; mulch lightly, three or four inches being enough in most cases; use material free from weed seeds, as clean straw, leaves, cotton-seed hulls, pine needles; and remove the mulch in early spring, before the plants beneath have started enough to be checked. The practice of sowing rye or other grains in the strawberry bed, with the purpose of letting it fall down of itself and mulch the vines, is not recommended.

Aside from completely or partially covering the tops of the plants to enable them to escape winter injury, it is often feasible to bank soil around the base of the plants. The most serious winter injury is that of the trunk, if this is uninjured, the tree may recuperate, as is often the case with frozen oranges, peaches, figs and other fruits.

Injuries to fruit plants from cold weather may be of all degrees, from the injury of the fruit buds or the killing back of the shoots, to the death of the plant. The killing of the fruit buds is the most common form of winter injury. Peaches, apricots and plums suffer most frequently. There is no treatment for winter-injured buds that will restore them to their vitality.

Another and more serious form of winter injury is the killing of the wood. This may be merely the killing back of tender terminal shoots, or general injury of the entire top. In the former case all that is necessary to do is to cut back to healthy wood in the spring.

Winter injury of the entire top is usually evidenced in the case of fruit trees, by the cambium layer becoming brown or black, instead of green. In severe cases the first few layers of young wood beneath it may be killed also.

Nothing can save some trees that are very badly winter injured, but one should not be in a hurry to dig them out until after the season is well along. The ability of some fruit plants to recuperate from winter injury is remarkable. Very often trees that show a brown cambium layer in spring and appear hopeless, may be saved by careful treatment, provided the roots are sound. Young and vigorous trees should be cut back, but rarely should more than one-fourth of the top be removed. Old or weak trees may be cut back very lightly, and in many cases it is best not to touch such trees at all, as they seem to need the stimulus of the growth of all their buds. More winter injured trees have been ruined by cutting back too heavily than those that have died because not cut back at all. The further stimulus of cultivation and manuring may help the plant to recover.

The killing of the root is an even more serious form of winter injury than the injury to the top, since it is less amenable to treatment. It occurs most frequently in filled fruit gardens that have been kept free from weeds up till winter, and no protecting cover crop has been provided to blanket the roots. The tops may show no injury whatever, while the roots are dead. Peaches are most likely to be root-killed, but all tender fruits suffer more or less in open winters. Two things need to be done; plant fruits budded on the hardiest stocks, and blanket the roots in winter. I have seen the soil frozen three feet deep on bare tilled land, and but one foot deep on sod land beside it. Weeds a cover crop, manure and sod, all help to prevent serious root killing. The treatment of root-injured trees is similar to that of trees hurt in the top.

Editors Note: At Green's Fruit Farm we protect nothing but half hardy roses, and seldom have injury from cold winters.



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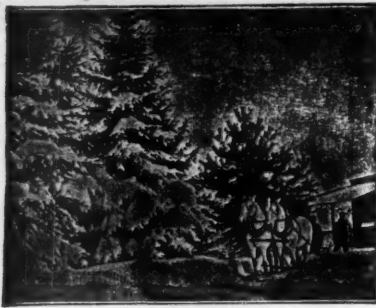
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When Christmas Comes.

Written for Green's Fruit Grower by C. W. Hamilton.

When Christmas comes out on the farm,
And all within is snug and warm,
And all without is safe from harm,
Of winter's snow and wintry storm,
Then peace indeed is on the earth,
And good will reigns in Christmas mirth
While city bells,
Their music swells,
This country cheer
We're having here.

Out on the farm when Christmas comes,
The housewife brings her goodly store,
Of apples, peaches, pears and plums,
And puddings, pies and cakes a score,
To garnish then her table fair,
On snowy linen laid with care,
With turkey too,
And cider new,
This country cheer
That greets us here

Notes From Field and Farm.

When hens are kept without a male, eggs are produced at about thirty per cent. less cost than similar pens containing cocks and cockerels. In some pens the production of eggs will be nearly one-third larger in pens where no males are kept than in others of precisely the same kind managed in the same way except that the presence of males is permitted.

Whether or not it pays to wipe apples before packing depends upon the condition of the fruit. If it is covered with dust and spotted with spray it will certainly pay to wipe and this can be done rapidly as the fruit is graded, or if a sorting machine is used at the time of inspection. When wiping is necessary, it should be done as soon after the fruit is picked as possible, as the apple has a tendency to coat itself with a waxy substance soon after being picked. After this coat has formed it is very difficult to wipe the apple. This waxy coating is necessary to insure the keeping quality of the fruit, as it prevents certain detrimental changes under the skin. Apples should never be polished, as this destroys their keeping quality. The dago at the street stands in town do this but the fruit is sold the same day and no harm is done.

The season of the year is rapidly approaching when the orchardist should do a little housecleaning around the works. Just as soon as the crop is out of the way, the orchard should be thoroughly cleaned of all diseased limbs and twigs and leaves if possible. Trees suffering from pear blight, twig blight and other complaints should be pruned of all infected limbs and twigs and the parts pruned away should be burned at once. Rotten fruit left on the ground should be picked up and consigned to the fire. Leaves piled on the ground afford an excellent place for the codling moth and fungous diseases to winter over and with the weeds are quite dangerous to the welfare of the orchard. Time spent in cleaning up an orchard in the fall will be amply rewarded with better and cleaner fruit the next season or, at least, an orchard so treated will have a fair start in the spring.

The scientific gentlemen have finally arrived at the conclusion that the red

colors in apples can not be increased materially by any kind of fertilizer applications, although potash and possibly phosphates may be of some slight assistance. These colors are directly dependent upon sunlight and maturity, with the latter occurring preferably on the tree. Late picking, open pruning, light soils and sod culture therefore tend to increase the reds in fruits, while opposite conditions decrease them. The retarding influence of nitrogenous fertilizers or manure on color makes it advisable to use them less freely on some of the red varieties, especially those in which the color comes on rather tardily, such as the York Imperial. On the lighter soils or in localities with the longer growing seasons, this precaution is less important. We learned in Colorado that the best coloring effect was obtained by the natural process of a mild frost followed by the genial sunlight of the warm days which are so common with us at this time of year.

The most of the Delicious apples grown on the eastern slope this year did not acquire their usual size, and besides they showed the marked fault of the variety in badly misshapen specimens from the same tree. In some cases the hail during the summer stung the apples pretty badly and interfered seriously with their development, but still on account of superior quality every apple of this variety will be snapped up by the buyers. The season seems to have been detrimental in some mysterious way to the natural growth and filling of the fruit. The color is all right but everything is undersized even on the trees that were thinned and pruned carefully. To us it looks as if the land on which they grew lacks the elements of fertility which enter so largely into the perfect fruit and it is evident that the fault lies more with this deficiency than with the season. The shortage of water at the right time also had a good deal to do with it. One of the retail grocers within half a block of our office which has heretofore been glad to get apples grown near Denver, sent a buyer into the Montezuma valley the other day and he contracted for 5000 boxes of very fine apples in one orchard. This is one way to cut out some of the middlemen and how simple it all is.

A neighbor had an experience with a fanning mill he bought lately. He had a lot of blighted wheat that a buyer said was worthless for milling, and would only pay for it what it was worth for feed. By way of trial, he put 100 bushels of this stuff through the mill and got forty-five bushels of wheat that graded No. 1 and he had fifty-five bushels of feed that sold for just about what he was offered for it when the good wheat was in it. This is the best argument for a fanning mill I ever heard.

Fruit which is fully matured and well colored holds better and longer in storage than immature, poorly colored fruits. It is the common practice however to pick fruit intended for storage before it is fully matured. Green, immature fruit is subject to scald and if very green will shrivel in storage, while the same variety fully matured holds much longer and in better condition. This principle has been found to hold true for all kinds of fruits except pears and lemons. These are apparently the only fruits which are better when picked before full maturity or ripeness, as the term is ordinarily interpreted. By full maturity is meant full color, firm with the seeds fully grown and colored. Overripeness must be avoided as much as immaturity. In some sections it is a general practice to allow the crop to remain until all the fruits are fully colored. There is danger when this is done that part may become overripe and consequently have low storage or even shipping quality. It is best especially with the earlier ripening varieties, to make more than one picking, selecting each time the fully colored fruits and allowing the undeveloped to remain. The fruit growth on the outer branches develops more rapidly and consequently ripens first. Much more uniform storage-holding quality can be obtained by keeping these fruits separately, unless the trees are open headed and there is a uniform development throughout.

No packer can put up a first class commercial box from fruit that is not properly graded. Some growers object to grading the fruit before it reaches the packing table, arguing that the two operations of grading and packing can be performed at the same time and by the same person. Anyone who has seen first class packers at work will readily understand why the grading and packing should be done separately. When packing at the rate of even forty boxes a day, and some packers will double this rate, the fruit is moving too rapidly to perceive small defects, which should disqualify the imperfect specimens.

Western Farmer Horticultural Notes.

Prune the orchard now and cut out useless branches. Leave more limbs that will give symmetry to the trees.

How is your woodpile? Is it low down? The old dead apple trees cut up will replenish it, and now is the time.

The tree that blew over is not worth pushing up, for it will blow over again. Make firewood of it and plant a new one in its place.

Sweden has a law requiring the planting of two trees for every one cut down. Why wouldn't that be a good idea in this country?

If the cellar is warm, look out for the rotting apples. Do not keep the cellar shut up tight, open it at night and let in the frosty air and close it on warm days in the morning.

Plant memorial trees on the birthdays of your children and they will always have a monument. Of course if the birthday comes in midwinter, better wait until spring to plant.

It is interesting to note how well trees remember good care that they have received the previous season. Really a large share of the thrift of a tree depends upon the store of nourishment and vitality laid up the year before.

Wrap long-stemmed rose bushes with rye straw or gunny-sacking. The object is not to prevent freezing, but to guard against alternate thawing and freezing and to moderate sudden changes in weather.

The crimson rambler rose is growing in popularity, and no wonder! A bush capable of growing from ten to fifteen feet of new wood in one season, and producing from two to five hundred perfect blossoms of a deep crimson hue, certainly deserves favor.

Sometimes the fruit of a single tree is worth more than two or three acres of wheat. There is a tree in northern Delaware seventy to eighty years old, that has produced an average of \$50 worth of fruit annually for nearly twenty years. One year the cherries sold for \$80. Six years ago this old patriarch bore 54 peach baskets of delicious fruit, or about 1100 pounds. And all of this fruit has been a free gift of nature, as the old tree has stood in a dooryard all these years, unattended and uncared for except in cherry time.

Gooseberries can be grown on a variety of soils in northern latitudes. However, it prefers cool, strong, rich soil, but on a northern exposure. Will succeed on light, sandy, or even gravel loam. A mucky soil will produce an abundance of growth. The plant requires much food and therefore needs to be fertilized heavily on light soil. A heavy top dressing of cow manure each fall on such soils is necessary, while on the richer soils a dressing of manure every two or three years is sufficient.

Wolves are said to cause greater losses to western stockmen than any other of the predatory animals. It is estimated that a family of wolves will destroy about \$3,000 worth of stock per annum, and that one able-bodied individual costs the grazing industry \$600 a season.

The wolves are of two classes—the smaller, prairie wolves or coyotes, and the larger gray, black or timber wolves, called "lobos." These latter are the great stock destroyers against which the campaign of the rangers has been waged.—Washington Star.

Phenomenal Apple Tree.

An apple tree in Walla Walla valley, Washington, holds the fruit yield record. It produced nearly 200 bushels of apples last season, thus breaking its own record of 126 1/2 boxes in 1907, the highest production, it is said, for any tree known anywhere in the world. This tree bore 70 boxes in 1906, 42 boxes in 1908 and 45 boxes in 1909. More than 500 barrels of fruit have been picked from it since it came into bearing in the spring of 1871.

The tree was grown without irrigation, from a seedling planted in 1866. It is 42 feet in height and its branches spread 57 feet from tip to tip. The trunk is seven feet in circumference at the base and measures six feet and six inches just below the first limb, which is four feet from the ground and measures four feet and seven inches. The tree is sound and healthy, despite the fact that it has produced fruit every season for nearly forty years.—Exchange.

What Price for Apples.—The natural tendency among growers, especially those who have the best fruit, is to look for high prices this fall when the buying for winter consumption starts. Last year, prices at the beginning of the deal ranged from \$1.50 to \$1.75 for No. 1 pack, with fancy Greenings bringing slightly more in some cases. This year Baldwin growers say they ought to get from \$2.50 to \$3.00 or \$3.50 for their fruit, according to quality. Dealers claim that the price ought not to be above \$2.25 as a rule, with \$2.50 the limit for fancy pack.

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Anniversaries.

Always it is a woman who remembers Of two who might forget a certain day. Whether it be of Love's bygone Novembers, Or, happily out of the heart of May.

Always a woman sits at Life's cold embers, Seeking the gem where once it shining lay: Always it is a woman who remembers, While heedless goes a man upon his way.

—Charles Hanson Towne, in Harper's Bazar.

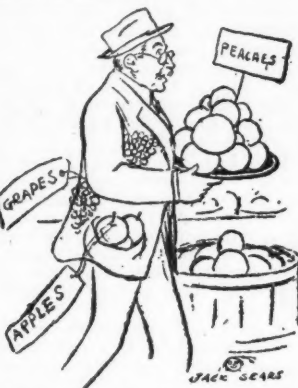
The French Never Waste.

The French woman coming to this country stands aghast not at what we buy and use, but at what we waste. They consider prices here cheap, for in Paris veal is fifty cents a pound, and other meats in proportion.

But in France not a crumb is wasted. The water in which both vegetables or meat is boiled is used as a basis for soup, or as a flavor, or to warm up some of the cold meat instead of being poured away as is done here. To begin with the French cook selects a much larger piece of meat than is necessary for one meal, and she buys shank, skin or some of the cheapest cuts.

The meat is put in a large pot with much water, allowed to simmer till half done, then the vegetables are added and a little bunch of herbs tied together, so that they can be conveniently taken out. When all is done the liquid with croutons is served as soup, the vegetables garnish the meat, and a salad of watercress served too, with perhaps some jelly and cream cheese, to complete a well-balanced, tasteful and inexpensive dinner. Next some of the remainder of the meat will appear heated up in the liquid, while onions fried in oil are arranged around the dish and poured over the meat.

You will recognize again some of the left-over as a stuffing for tomatoes, while for luncheon some slices cut very thin will have a piquant sauce of chopped pickles to help it down. Last of all the very tag ends will appear as an entree, the meat finely chopped, bread crumbs added which have been soaked in milk, a chopped onion and handful of raisins, the whole folded into a bit of pie crust. When this is baked a delicate brown, and served hot, you declare the last is even better than the first.



Jack Sears, the genial artist of the Democrat and Chronicle, has in the above illustration somewhat magnified the enthusiasm of the exhibit of fruits at our Western New York Exhibitions and conventions. But who has ever known of a man notable for the production of beautiful specimens of fruit who is not anxious to exhibit these products.

I am told that in the aristocratic city of Boston wealthy residents of the suburbs are frequently seen entering the city on the street cars or in automobiles carrying in their hands baskets of beautiful pears, apples, peaches, plums and grapes, which they have produced upon their extensive estates. What more beautiful gift could such a man make to a friend less favored and more closely confined at his city office than to bring him a basket of delicious and attractive fruits.

Species of Fishes.

Questions are frequently asked at the New York aquarium concerning the number of species of fishes in this region, in North America and in the world. In any locality where the fishes have been well studied it is an easy matter to answer such a question, says Buffalo Express.

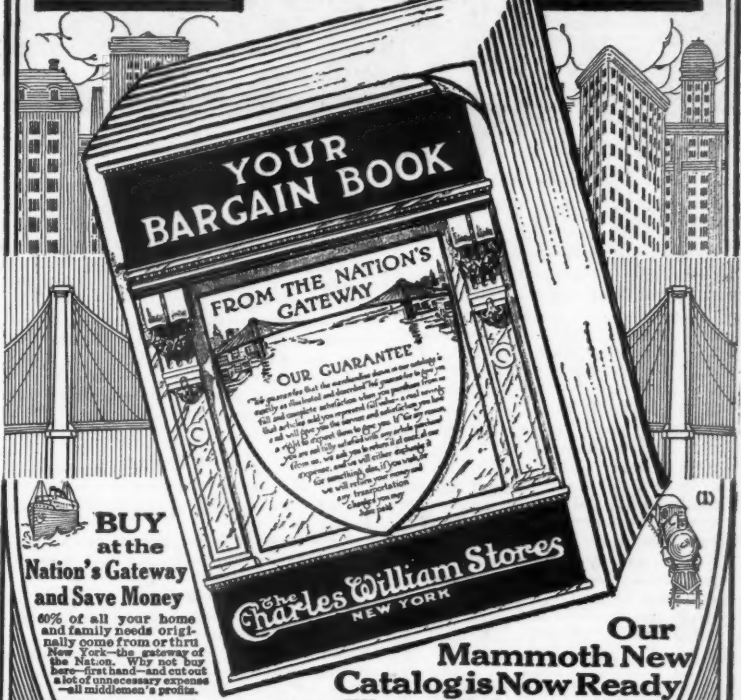
Thus, within fifty miles of New York city there have been taken 239 species, according to John T. Nichols, of the American Museum of Natural History, who has carefully collected the records of occurrences. Of course, this number may be increased slightly in coming years, especially by the capture of marine wanderers accidental to our fauna.

The number of North American species can only be estimated somewhat roughly at present, for the reason that in many regions the fishes have not been studied with sufficient care. Jordan and Evermann, in their report upon the fishes of North and Middle America, list about 3,500 species.

Frog's legs, at which people turned up their noses in disgust only a few years ago, have now become so popular an article of diet that no fewer than 6,000,000 frogs a year are killed in Minnesota alone to supply the demand. The northwestern frogs are the most delicate, but the biggest are the Southern bullfrogs. The latter are not so sweet or tender as the former.

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House Centipede or Thousand Legged Worm.

This creature is well-known and although greatly disliked by housekeepers, it is really their friend. These centipedes consist of a head and body; the former bearing a pair of long feelers and the latter fifteen pairs of long, delicate legs. They are very rapid movers and dart along the floors and walls at a great rate. These centipedes feed exclusively upon small household pests such as house flies, croton bugs, silver fish, clothes moths and bed bugs. The bite of these worms is poisonous to many people, but it is doubtful if they ever bite except in self defense. If bitten, apply ammonia at once to the wounded parts.

House centipedes frequent damp and unsanitary places such as old bath-rooms, cellars, under decaying boards, etc. As stated, they are beneficial, but if they become too numerous, it is best to destroy them. This can be accomplished by killing them when seen and by sprinkling fresh pyrethrum powder around in their haunts.

Women govern us; let us try to make them more perfect. The more they are enlightened so much the more we shall be. On the cultivation of the minds of women depends the wisdom of men.—Richard Brinsley Sheridan.

The Boy and His Dog.

Next to his mother the thing in this world the small boy loves best is his dog. The homelier the animal is, the more unattractive he appears to other eyes, the fonder the boy is of him. And his affection is more than equalled by the devotion of the dog, says The Farmer's Guide.

It is a theory of some of the psychic researchers that transference of thought, or telepathy, is a survival of a power the human mind had of communicating with another before speech was born. If this is true, the power is clear and strong between the boy and his dog. They understand each other perfectly. They need no man language or dog language. The two are always in complete rapport.

We read the other day of a little fellow who ran away to escape a whipping and was drowned in a slough. It was the boy's dog which discovered his master's bedraggled little cap and pointed out to the rescuers where to find the body. Such happenings are not infrequent, but they are always pathetic. What must be the

depths of the dog's feelings when such a calamity comes into his life; and it must be all the more profound because he cannot give expression to it.

The dog can express his joy, his love and his devotion. He can express them buoyantly, abundantly with every bit of his body to the very tip of his tail. But grief he can only show by a quiet look from sad and mournful eyes, too full for tears. One other way he has and it is not uncommon. Often on a newly marked grave the body of a dog is found. He has given expression to his feelings in the only way left to him—by dying.

In Cuba, where the sun shines fiercely at Christmas time, there is no holiday crowd on the streets. Instead of roast turkey, pig is served and the Christmas dinner comes at night, concluding with a religious feast at midnight. But wherever English, Americans, or Germans dwell, the whole world round, the Christmas customs of the home-land have been introduced. Wherever there is an American man-of-war or an American passenger ship, there is an American Christmas celebration.

Best Apple Varieties.

We made inquiries in regard to the most popular apple varieties, judging from the sales of nursery stock, says Rural Life.

We were informed that the Baldwin is the leader for Western New York planting, with McIntosh Red and Rhode Island Greening close seconds. Wolf River and Spy are fair sellers. The Winter Banana gives indications of being a very profitable apple, a winner in Western New York.

Stayman's Winesap is a leader in the middle states, including Delaware, Maryland, Virginia and West Virginia. The York Imperial, which used to be a leader, is giving way to Stayman's. Mammoth Black Twig, Grimes' Golden, Rome Beauty and old Winesap are popular in these states. Of the summer apples for the Delaware-Maryland Peninsula, Williams' Early Red and Yellow Transparent are leaders. The Star is not a big seller, but is forging ahead fast, especially in New Jersey.

To get rid of lice and wood ticks on horses and cattle, use a five per cent. solution of any carbolic coal-tar sheep dip, says Field and Farm. Applications must be made two or three times in order to catch the hatching lice.



Christmas Bon Bons.

Written for Green's Fruit Grower by
Lydia Putnam Stevenson, Wis.

Candies and sweetmeats are always acceptable at Christmas time and the homemade kinds are much more wholesome and purer in quality than the boughten ones, and altho they require a little labor and time are less expensive. Here are some tried and true recipes for making several different kinds.

Cocoanut Crisps.—Beat the white of an egg to a stiff froth, beat in three tablespoonfuls of sugar, stir in shredded cocoanut, drop in little round pats on buttered tins and bake to a delicate brown.

Salted Peanuts.—Take one quart of nuts, shell and put them into a flat, shallow pan in which has been poured one teaspoonful of melted butter. Salt generously from time to time with a shaker and stir occasionally, allowing the nuts to brown.

Popcorn Balls.—Make a syrup of one cup of sugar, one teaspoonful of cream tartar and one-half cup of water. Boil until it will hair when dropped from the spoon. Stir into it a gallon of popped corn; stir until thoroughly mixed and form quickly into balls. Any coloring or flavor can be added to the syrup.

Candied Popcorn.—Put in a shallow kettle one tablespoonful of butter, three tablespoonfuls of water, and one cup of granulated sugar. Boil until it hairs when dropped from a spoon. Throw in three quarts of popped corn, stir briskly until each kernel is covered. Take the kettle from the fire, stir until cold. Nuts can be candied in the same way.

Chocolate Drops.—Mix powdered sugar with equal parts of white of the egg and cold water to a stiff "dough" that can be handled as biscuit dough is handled, by dredging in the powdered sugar when handling it. Roll little balls of it in the palms of the hands and set away to harden. When hard roll the balls in melted chocolate and let harden again. They're delicious, plain or flavored with any kind of flavoring.

Egg Candies.—This recipe makes about three pounds of excellent candy. Material needed: One egg, one lemon, one half pound of dates, two pounds confectioner's sugar (powdered sugar will do), one-half pound of nuts (pecans, hickory nuts or English walnuts), vanilla and peppermint extracts for flavoring. There will be needed three large bowls, a large grater, two spoons and a knife, several sheets of waxed paper or smooth brown paper rubbed with butter will do. Crack and shell the nuts. Stone the dates. Grate the yellow rind from the lemon. Put the white of the egg in one bowl, the yolk in another bowl. In the white of the egg put one teaspoonful of water; in the yolk of the egg put one teaspoonful of lemon juice, and the grated yellow rind. Stir both the white and the yolk to a stiff paste with the sugar, so stiff that you can handle it without sticking. Divide the white putting half in the third bowl. Flavor one part with one-half teaspoonful of vanilla, the other with six drops of peppermint. Roll little balls of the peppermint the size of a marble and lay on the waxed paper. Flatten gently until they are shapely; if cracks appear dip the knife in water and smooth them. Make the vanilla balls a little larger and press one-half a nut upon each. Fill the dates with the lemon sugar and roll in powdered sugar. Take what is left of the lemon sugar and make into lemon drops as you made the peppermint drops.

Watch Your Sink.

The sink itself should be washed down after the washing up after each meal, and once each day a handful of soda should be placed over the sink grating and a kettle of boiling water poured over it in order to dissolve and wash away any grease that has accumulated in the pipe, which if allowed to remain would decompose and give rise to an unhealthy odor, particularly in hot weather.

Most important of all in connection with the sanitary condition of the sink is to see whether it is properly connected.

This means that any kitchen pipe that disappears mysteriously into the ground must be regarded with suspicion and must be altered so that it discharges its dirty water out of doors over a gully trap which is covered with a grating. If the housewife suspects wrong drainage or cannot feel sure that matters are right the sanitary authorities of the district are always willing to give advice and if necessary to force the owner of the house to set it in a perfectly sanitary condition.

About Women.

'Tis the greatest misfortune in nature for a woman to want a confidant.—George Farquhar.

How many women would laugh at the funerals of their husbands if it were not the custom to weep.—Anonymous.

Modesty in women has great advantages; it enhances beauty and serves as a veil to uncomeliness.—Fontanelle.

For women are as roses whose fair flower being once displayed both fall that very hour.—William Shakespeare.

The secret of youthful looks in an aged face is easy shoes, easy corsets, and an easy conscience.—Anonymous.

Love of Gossip.

One of the chief characteristics of the human race is inquisitiveness—not so much about things and places and ideas as about each other. Every proper person is a born gossip, and the accomplished scandal-monger is always welcome—providing, of course, his scandal is about others. You can test this at any time by considering who are the people you like best to meet, and who are always surrounded by the greatest number of idle acquaintances. Invariably you must be forced to the conclusion they are those who have made a business of acquiring information about others and retailing their knowledge in various dressings. This love of gossip is further revealed in the kind of books which claim the widest appreciation. You will find that these books are not poetry, drama, science, or philosophy. They are novels, memoirs, diaries, intimate histories, recollections, letters—all of them essential gossip (and sometimes scandal) appealing by their power to attract the gossiping sense which exists in all of us.—T. P.'s Weekly, London.

Eager Young Man (who has called on adored one): "I can't wait any longer, dear. I really had to 'phone. Will you marry me?" **Gentle Voice** (in reply): "Why, yes of course, I will. But haven't you got the wrong number?"—Cleveland Plain-Dealer.

Man's Words on Woman.

How can one who hates man love a woman without blushing.—Jean Paul Richter.

In the highest society, as well as in the lowest, woman is merely an instrument of pleasure.—Count Lyof N. Tolstoi.

Those females who cry out loudest against the flightiness of their sisters, and rebuke their undue encouragement of this man or that, would do as much themselves if they had a chance.—William Makepeace Thackeray.

Women know at first sight the character of those with whom they converse. There is much to give them a religious height to which men do not attain.—Ralph Waldo Emerson.

Women see through and through each other; and often we most admire her whom they most scorn.—Charles Buxton.

Woman is a miracle of divine contradictions.—Jules Michelet.

It is more possible to do without a wife than it is to dispense with eating and drinking.—Martin Luther.

I have seen more than one woman drown her honor in the clear water of diamonds.—Comtesse d'Houdetot.

In all eras and all climes a woman of great genius or beauty has done what she chose.—Ouida.

Age cannot wither her nor custom stale her infinite variety.—Shakespeare.

Look not mournfully into the past, it comes not back again; wisely improve the present. It is thine. Go forth to meet the shadowy future without fear, and with a manly heart.

About the House.

Put a little salt in the starch and it will not "freeze out" of the clothes when they are hung out to dry in cold weather.

Rub damp salt on cups and saucers to remove discolorations caused by tea and careless washing.

One teaspoonful of lemon juice added to boiling rice or sago whitens the kernels and imparts a delicate flavor.

Rubbing the pancake griddle with a raw potato will do just as well as greasing with lard or butter.

To remove paint splashes on the window glass moisten the spots with a strong solution of soda; then rub hard.

To save grease when frying doughnuts put half a teaspoonful of ginger in the grease when hot.

Wet shoes should be stuffed with paper, which will absorb the moisture and prevent the shoes from getting hard.

Buy five cents' worth of gum arabic. Dissolve it in warm water and you will have a better and cheaper mucilage than you can buy at the store.

To open jars of preserves that have been put up for some time, place a warm flatiron on the cover of the jars for a few moments and you will have no trouble in unscrewing the lids.

When the water pipes are frozen, if a heap of lime be laid on the earth, and it be made slightly wet and covered with blankets, it will draw the frost out of the ground and thaw the water pipes.

If you would have your candles last almost twice as long as they usually do, try the following plan: Hold each candle by the wick and give it a coat of white varnish. Then put the candles away for a day or two to harden. The varnish prevents the grease from running and preserves the life of the candle many hours.

How to Love People.

"It's so hard to love people," sighed a conscientious little woman the other day, after an involuntary outburst over the unlovableness of Cousin Jane.

"But why," said the Wise Woman, in return, "why try to love people? Be content to love qualities!"

It's a very good plan! Then, strong in the realization of your deep, warm and reverent love for purity, you will find that you are loving the weary, sharp-tongued little seamstress whose quick temper has often irritated you, but whose mind is white and innocent and sweet to meditate upon; that you are loving the child-heart, the mother-tenderness, the father-strength and protection wherever they manifest in the world.

Learn to love courage, and you find yourself loving the grimy miner descending into the earth to save an imprisoned comrade's life at the risk of his own; the struggling wife and mother, who, racked with pain and fresh from an operating table, scrubs floors with one knee on a stool "to keep from tearing the stitches open."

Love loyalty, and you love the criminal who refuses to turn state's evidence and save his neck at the cost of his partner's life.

It is hard to love all of people, but it is very easy to love some part of each, and if we will practice loving qualities instead of persons, our problem will be solved.—Editorial in McCall's Magazine.

Beatitudes for the Housewife.

Blessed is the currycomb for sealing fish; it is better than a knife, as it protects the hands.

Blessed is the cornpopper used for toasting odds and ends of stale bread which would otherwise be wasted.

Blessed are the thin strips of felt, which, glued to the bottom of the dining chair legs, deaden the noise and save the hardwood floors.

Blessed is the spoonful of salt added to the water in which are boiled slightly cracked eggs. The salt prevents the white from coming out.

Blessed is the cupful of confectioner's sugar, which when moistened with sweet cream and flavored, makes a toothsome frosting to spread on a cake.

Blessed are the tea leaves, which after steeping in water for half an hour may be strained and the liquid used to wash the paint. The woodwork will look cleaner and fresher than if soap and water were used.

Blessed are rubber corks, which, pressed firmly, keep catsup as well as if the bottles were sealed. Ammonia, benzine, or any drug which evaporates can be safely left in a bottle with a rubber cork.

Blessed are the kitchen scissors when used for dicing apples and celery, clipping asparagus, cutting up cold boiled chicken and lobster. In fact, there are no end to the uses to which a pair of kitchen scissors may be profitably employed.

Blessed is the starch groundfine, and used to prevent chapped hands. Every time the hands are washed and rinsed thoroughly, wipe them and while they are yet damp rub a pinch of starch over their entire surface. Then chapping is not likely to occur.



Give This Duntley Pneumatic Sweeper For Christmas

What better for a Christmas Gift than this sweeper which brings freedom from dust danger and relief from back strain. For years it will be a never-ending labor saver in the household. The combination of the pneumatic suction nozzle and revolving brush draws in all dust and dirt and picks up all lint, pins, ravelings, etc., in one operation.

Duntley SPECIAL Pneumatic Sweeper

This sweeper is quickly cleaned. The revolving brush is not stationary, but comes apart with the sweepings pan. The dust bag is rigid, allowing easy cleaning. The price of this sweeper places it within the range of every woman's means. Four different styles, \$6.75 up. Money returned if not satisfactory.

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HANDIEST help ever invented for home dressmaking, as it assures absolute accuracy and style in the correct "hang" of the skirt. It can be adjusted to any height and easily used by professional or beginner. Heretofore all skirt gauges were only skirt makers, but the EZY-HEM enables a woman to turn the skirt the right length and pin it up all ready to hem, thus reducing the work of measuring, marking and turning to a minimum. It prevents expensive mistakes, saves time, work, worry and more than its cost on the first skirt made. It is made of nicely polished, nickel plated steel and will last a lifetime. It is also an excellent chalk marker.

DIRECTIONS.—Set gauge on the floor so that the skirt will fall over the long wire, making it come under or inside of the skirt. Fold the goods under, so that the long wire will come inside the fold, as shown in illustration No. 1 and pin the hem in place. Slide the gauge along and repeat. The EZY-HEM can easily be used as a chalk marker also. Place the gauge with the long wire finger outside and against the goods, and simply draw chalk along the wire lengthwise, using the wire as guide or rule.

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12-5-44—Oval Grape Centerpiece. This design, 16 x 24 inches, may be worked in white on white linen or damask, or in colors on ecru linen. When worked in white, the grapes should be padded and worked in satin stitch, all of the grapes in each cluster being worked in the same direction. When color is used, work the grapes in solid long and short stitch in three shades of purple, the leaves and tendrils in green, and the stems and edge of the centerpiece in light brown. Price of pattern 15 cents.



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6339

Patterns for Women Who Sew.

11-9-3—Shaving Pad. This design is pretty, done in solid embroidery on tan linen; the leaves and flowers in long and short stitch in green and blue and the ribbon in satin stitch in pale green. Price of pattern 10 cents.
6366—Girls' Dress. Cut in sizes 4, 6, 8, 10 and 12 years. Size 8 years requires 2½ yards of 44 inch material. Price of pattern 10 cents.

8230T—Pin Cushion. This design should be used upon sheer material and worked in solid and eyelet embroidery. Price of pattern 10 cents.
6319—Ladies' Dress. Cut in sizes 34 to 42 inches bust measure. Medium size requires 5½ yards of 36 inch material. Price of pattern 10 cents.
6339—Girls' Dress. Cut in sizes 4, 6, 8, 10 and 12 years. Size 8 years requires 2½ yards of 36 inch material and 1½ yards of ribbon. Price of pattern 10 cents.

Order patterns by number and give size in inches. Address Green's Fruit Grower Co., Rochester, N. Y.

Recipes.

Rye Popovers.—Sift one and a half cups of rye flour with one cup of rye flour, two teaspoonfuls sugar and one of salt. Beat two eggs till light, add two cupfuls milk, pour gradually into flour mixture. Divide into buttered pans, bake in hot oven for 30 minutes.

Scrappe.—Is made the same as for head cheese, except that all the liquor is poured back onto the meat when it is returned to boil after being chopped. Then corn meal is stirred in until as thick as corn meal mush, stirring constantly while it cooks fast for fifteen minutes, then shove back and let it cook slowly for an hour. The fireless cooker is fine for cooking scrappe. When cold it is sliced and fried.

Oyster Dressing.—One pint of fine bread crumbs, one-fourth cup melted butter (or less if desired less rich), one pint of oysters, chopped, salt and pepper. Double recipe to get amount of dressing needed.

Kleines Gebouk (Little Christmas Cakes.)—Mix together one-half pound each of flour, butter and sugar, a dessert-spoon grated lemon peel, one-fourth pound coarse-chopped almonds, and the yolks of six eggs. Set in a cool place thirty minutes, then roll out rather thin; cut into fancy shapes; brush with white of egg and bake in moderately quick oven.

Fruit Cake.—Take a loaf of yeast bread dough that is ready to bake and put in a pan and on this put the following: one and one-half cups of sugar, three eggs, one package of currants, one package of raisins, one-fourth pound of citron, two-thirds cup of butter, two teaspoonfuls of cinnamon, one and one-half teaspoonful of cloves, one and one-half teaspoonful of allspice, one level teaspoonful of soda dissolved in a little hot water. Mix all together until thoroughly incorporated. Grease a dripping pan and put in the bottom a paper to keep the cake from burning and bake one hour. When done ice with pulverized sugar with the juice of one lemon stirred in it. It keeps moist much longer than a cake made with baking powders.

Canned Pumpkin.—Cut up in small pieces the same as if cooking for pies, wash and put in a preserving kettle with plenty of water, cook done and can in glass jars, remembering to use plenty of water. When ready for pies pour off the juice, if there seems to be a great deal, then cook dry and use for pies the same as fresh. Here is a recipe for old-fashioned pumpkin pies: For every heaping teacupful of pumpkin put through the colander add one pint of rich milk, two eggs, one and a half cups sugar, half tablespoon ginger and the same of salt. Make a good short pastry, fill with the mixture, and just before putting in the oven drop a few small bits of butter over the top and grate over them a little nutmeg.

Your Christmas Gift.

The best part of any Christmas gift is the good will of the giver. If one feels that the Christmas remembrance is given from a sense of necessity it will lose most of its charm and all of its significance. "The gift without the giver is bare."

Unless the heart of the giver finds expression in the gift it remains merely a piece of merchandise. But he who gives of himself gives that which is above rubies and fine gold. "Love," said Henry Drummond, "is the greatest thing in the world." No matter how costly the Christmas remembrance, the heart feels itself to have been defrauded unless it finds love accompanying the offering.

To Mend Rubbers.

Thin spots in rubbers can be mended at home by applying a cement made from five cents' worth of rubber dissolved in benzine or chloroform. First apply benzine for an inch or more around the hole and scrape until clean and until a new surface is exposed. Then apply the rubber with a brush, as quickly as possible so that it will not harden.

How to Clean Aluminum.

A suggestion from the Home Economics Department, North Dakota Agricultural College.

What is the best way to clean aluminum ware? Aluminum ware may be cleaned by washing in hot water with plenty of soap. It may be polished with a paste of jeweller's whiting which has been sifted to remove hard particles. Paste may be made with soapy water or water and alcohol, or water and ammonia added to the whiting; spread paste smoothly on surface and polish with soft cloth or chamois skin. Nickel and silver are polished in the same way. Any good metal polish may be used. If the stain is very bad polish with sapollo. If this fails discolorations may be removed with a very dilute solution of nitric acid. Never use alkalies such as washing soda or potash in cleaning aluminum.

For the Bride.

There is one thing that you can choose for the bride without the ever present fear that it will be several times duplicated—and that is linen. No bride ever had too much linen. A bedroom set consisting of embroidered sheets, pillowcases, dresser scarfs and towels would delight the heart of any new housewife. Embroidered sheets and pillowcases show either a hemstitched or scalloped edge. The hems on the sheets are about three inches deep and those on the pillowcases two and a half inches. On towels and scarfs the hems are from one-half to two inches according to size. Monograms set in medallion effect are very effective in sheets and pillowcases. Wreaths of flowers encircling initials are also good. If you don't want to give as expensive a present as an entire set of bedroom linens, you will find that one or two handsome towels will make an acceptable gift. Bands of filet lace are now let into the best sets of towels with perhaps a row of drawn threads or hemstitching above and below the lace. Sometimes the initials of the bride are crocheted in the lace itself and sometimes they are embroidered above the band.

Her Hash.

"What is this, dear?" asked the young husband at breakfast.
"Minced veal, dear," replied the bride-wife.
"I think it needs something."
"Well, I don't know what it can be. I put everything in it I could find."—Yonkers Statesman.

32 Styles
1 to 8 Burners



When You Light Up Tonight

There's Something Wrong Unless
The Light Is An ANGLE LAMP.

BECAUSE—it turns night into day in thousands of homes, gives a light that's nearer to sunshine than any other artificial glow, and lights up without any of the faults of a lamp—positively no under-shadow. No heat, smoke, or odor.

Gives 16 hours of light on one quart of oil, requires cleaning only once a week, and is entirely free from danger. It can't explode—it will not disappoint in any way. It is a revelation in lighting—healthful, convenient, economical.

And for durability—read this: "We are and have been using three Angle Lamps bought of you fourteen years ago—very fine and as good as ever. We never had any trouble with them."

In writing for large catalog (illustrated) please mention No. 2.

THE ANGLE MFG. CO., 244-246 West 23rd Street, New York City

Start NOW Green's Fruit Grower Readers Can Easily Make \$25 Per Week At Home



READ WHAT THIS WOMAN DOES.

"Made over 11,000 yards of carpet on my loom in spare time the past three years," writes Mrs. Sadie E. Taggart, West Plains, Mo. "I never weave a day that I don't make 50 yards and I do my own housework. I weigh only 115 pounds—don't tire of weaving. Loom as good an investment as an acre farm."

For over five years I have been advertising in Green's Fruit Grower. Scores of Green's Fruit Grower Folks are earning good money with Newcomb Looms. I want all Green's Fruit Grower readers to know how you can make your time most profitable—how you can engage in a delightful and fascinating occupation in your own home, that will not interfere with your other duties and assure you big profits for as much or as little time as you may be able to devote to it. I promise that you'll be interested. I say, and I know that every word I say is true, that you can make more money and make it more easily by weaving on a Newcomb Automatic Loom than at any other kind of home employment. My 30 years' experience with others and their letters proves what you can do.

THE NEWCOMB AUTOMATIC LOOM

is made especially for home workers. Unlike any other loom, it practically works itself. A simple movement of the hand is all it requires of the operator. No treading—no stooping—no shuttle throwing. Just the easy work that thousands of old and young are making big money at today—at home.

No experience is necessary. You will be delighted with the ease with which you can make the finest and most durable carpets, rugs, mats, draperies of every kind, and even beautiful portieres, chenille curtains and hammocks.

Bear in mind also, that no cash outlay for supplies is required. Old carpets, sacks, cast-off clothing and rags all furnish material for the loom. And the results you get with such material are simply wonderful. You can be sure when you own a Newcomb, that you will have more than enough work to keep you busy. Many of our customers make from \$25 to \$50 a week weaving with the Newcomb, and you can do likewise.

Do not neglect this opportunity. Write me today for my free catalog. "Weaving Wisdom," which tells all about our looms and the extremely reasonable prices on which Green's Fruit Grower Folks can obtain one of them.

W. B. STARK, Sec'y, NEWCOMB LOOM CO.,

20 Taylor St., Davenport, Iowa.

ROSES OF NEW CASTLE

Is the title of the greatest book on the culture of roses and other plants ever published; gives expert experience of a lifetime—free. 10 pages, exceedingly illustrated—in natural colors; offers and tells how to grow America's rose. One collection of fine roses own-root rose plants. This beautiful book—FREE. Write.

HELEN BRUS, CO., Box 60, NEW CASTLE, W.V.



AGENTS BIG MONEY MAKER

It's simply wonderful the way this new portable lamp is selling. Burns kerosene (coal-oil). 10 cent's worth burns 60 hours producing

300 Candle Power Light

Splendid reading lamp for city homes. Absolutely indispensable in the country. Every home a possible sale. Profits run into big money. Your territory is open. Write quick for terms and canvasser's sample.

THOMAS LAMP COMPANY DAYTON, OHIO

770 Leno Street



FREE 4 RINGS

Send name and address. Get 24 pure Gold Eye Needles. Sell 2 papers for 10c with thumb FREE. When sold return \$1.20 and these four beautiful rings are yours.

GLOBE CO., Dept. 524 Greenville, Pa.



ARMY AUCTION BARGAINS

Saddles...\$3.00 up New Uniforms...\$1.50 up
Bridles...\$.30 up Army Revolvers...1.45 up
Team Harness...1.85 up "Ripg. Bibles"...1.45 up
Leggings, Fair...1.15 up "Swords"...\$.25 up
Tents...2.85 up "Shot Cartridges"...3.85 up
Colts Cal. 45, Revolvers...\$7.50 up Cartridges 15 c.
Sp. Field Manner Sp. Rifle 11.85 Cartridges 5 c.
Army Bruce Loading Rifle...90c Cartridges 5 c.
40 Large bore CYCLOPSA GATLING...Over 5,000 rounds.
BEST BOOK PUBLISHED ON WAR WEAPONS mailed for 25c.
Francis Bannerman, 301 Broadway, New York City

PATENTS Watson E. Coleman, Washington, D.C. Books free. Highest references. Best results.

Beacon FREE Burner

FITS YOUR OLD LAMP.

100 Candle Power incandescent pure white light from (kerosene) coal oil. Beats either gas or electricity. COSTS ONLY 1 CENT FOR 6 HOURS. We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Burner FREE. Write today. AGENTS WANTED.

HOME SUPPLY CO., 14 Home Bldg., Kansas City, Mo.

WATCH, RING GIVEN AND CHAIN

For selling watches and rings. We positively give a genuine American Swiss Watch and 100 Rings, beautifully designed ones, warranted time-keeper, 5-Year guarantee, Sparkling Set or Plain Ring, all for selling 10 Silver-A. custom Watches at 10c each. Paper of Gold-Eye Needles Free with each Watch. Easy to sell. Write for terms. Which will return the \$2 and we will send the watch and ring. Limited number of sets made.

HOME SUPPLY CO., Dept. 223, Chicago, Ill.

AGENTS: \$40 A WEEK

Startling new hosiery proposition—unheard of.

Hosiery for men, women and children.

Guaranteed for one year. Must wear 12 months or replaced free. Agents having wonderful success.

W. Price sold 60 boxes in 12 hours. Mrs. Fields 100 pairs on one street. G. W. Noble made \$35 in one day. Sworn proof. Sold only through agents.

Not for sale in stores. A hosiery proposition that beats them all. Big money sure. A chance of a lifetime. Write quick for terms and samples.

THOMAS HOSEIERY COMPANY

5070 West St. Dayton, Ohio

CLASSIFIED ADVERTISEMENTS

No display advertising will be placed in this department and no type larger than 6-point. The first three words only to be printed in capital letters. Each advertisement number will count as one word. Rate 10 cents per word for each insertion. No advertisement inserted for less than \$1 per issue. We cannot afford to do any book-keeping at this rate. Cash must accompany every order. Orders must reach us not later than the 15th of the month previous to the month in which the advertisement is to appear.

Terms: CASH WITH ORDER.

Green's Fruit Grower Co., Rochester, N. Y.

HELP WANTED

REPORT LOCAL INFORMATION, Names, etc. to us. No canvassing. Spare time. Exceptional proposition. Enclose stamp. National Information Sales Company, Dept. AVH, Cincinnati, O.

You are wanted for a GOVERNMENT JOB. \$65 to \$150 month. Parcel Post means many vacancies. Common education sufficient. "Pull" unnecessary. Over 12,000 appointments coming. Write immediately for free list of positions, with full description. Franklin Institute, Dept. A-147, Rochester, N. Y.

SALESMEN—SINCERE PLUGGERS MAKE GOOD. Big, new, automatic combination, 12 tools in one. Sells to contractors, farmers, teamsters, fence builders, threshers, mines, etc. 24 pounds but lifts or pulls 3 tons. Stretches wire, pulls posts, hoists, etc. Write for the facts on this fast money maker. Harrah Manufacturing Co., Drawer C, Bloomfield, Ind.

MALE HELP WANTED

FREE ILLUSTRATED BOOK tells of about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-1146. No obligation. Earl Hopkins, Washington, D. C.

LOCAL REPRESENTATIVE WANTED. Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, L-638, Marden Building, Washington, D. C.

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WANTED—FARM LANDS. For quick results state price and description in first letter. Western Sales Agency, Phoenix Bldg., Minneapolis, Minn.

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 82 Palace Bldg., Minneapolis, Minn.

CASH FOR YOUR FARM. I bring buyers and sellers together. If you want to buy, sell or exchange any kind of property or business anywhere write me. Established 1881. Frank P. Cleveland, 2856 Adams Express Building, Chicago, Illinois.

COLD STORAGE

COLD STORAGE is the best way of keeping fruit—everybody knows that. Investigate the Cooper Brine System, using ice and salt for cooling. Superior results over common storage and also over refrigerating machines, reasonable first cost; absolute safety against breakdown. Madison Cooper Co., 110 Court St., Calcium, N. Y.

FOR SALE

DUROC AUGUST PIGS, \$15 pair, pedigree. S. A. Weeks, DeGraff, Ohio.

SCOTCH COLLIES—Write for prices. Katharine Tack, Rainbow, N. Y.

GIANT HIMALAYA BLACKBERRY. Six plants 50 cents. One doz. 75 cents. Willard Brower, Grafton, Ill.

SWEET CLOVER SEED—The true white blooming variety. (Melilotus Alba.) Write for free sample of new crop seed and latest prices. Henry Field, Shenandoah, Ia.

FOR SALE: 5000 White Pine hot bed sash, sizes 3' 6" x 6', bottom rail 1" x 4 1/2", top rail 1 1/2" x 3 1/2", stiles 1 1/2" x 3 1/2", muntins 1 1/2" x 1 1/2", 44 D. S. glass 6 x 7 1/2". Prices in lots of 25, \$1.25 each. These sash were built to order and cost \$3.50 each in carload lots. 25,000 square feet second hand. 22 gauge corrugated iron measuring 26' x 9' and 26' x 10' at \$1.10 per square. 10,000 squares 1-ply rubber roofing, with nails and cement, 50¢ per roll. Buffalo House Wrecking & Salvage Co., Buffalo, N. Y.

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NEW JERSEY FARMS—184 Acre Fruit Farm, 9000 apple, peach, quince, cherry, pear trees, asparagus, berries. Fine home farm. Send for list choice profitable farms. A. W. Dresser, Burlington, N. J.

NEW ENGLAND ILLUSTRATED—Describing princely estate, imposing buildings, 89 acres, apple orchard, over \$10,000 worth timber (and 600 other country homes), postpaid. Chapin Farm Agency, Boston.

MONEY-MAKING FARMS: 13 States, \$10 to \$50 an acre; live stock, tools and crops often included to settle quickly. Big illustrated Catalogue No. 36 free. E. A. Strout Farm Agency, Station 1233, 47 West 34th Street, New York.

REAL ESTATE FOR SALE

SELL YOUR PROPERTY quickly for cash, no matter where located, particulars free. Real Estate Salesman Co., Dept. 22, Lincoln, Neb.

MISCELLANEOUS

GESE AND DUCKS. All standard varieties, exhibition and utility. Prices reasonable. W. B. Keesein, Wapakoneta, Ohio.

PATENTS THAT PROTECT. Careful, honest work in every case. Patent your ideas, they may bring wealth. 64-page book free. W. T. FitzGerald & Co., 801 F St., Washington, D. C.

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I WISH TO START a High Grade Fruit and Poultry Farm with a capital stock of \$10,000.00 taking half interest myself, and sell 50 shares at \$100.00 each, bearing 5% per annum and bonus on net profits. This is a sure money maker. For particulars address F. E. Barnes, Box 315, Gary, Indiana.



Christmas.

The Merry Christmas bells are pealing,
Homes are decked in bright array,
In every village, every city,
Mirth and gladness rule the day.
Hear the happy voices ringing,
Joy and gladness is it bringing,
Driving all our cares away.

Oh cheerful bells, sweet reminder
Of the joy when Christ had come,
Born in a manger, meek and lowly
Yet was he Jehovah's son.

Oh the power and oh the glory
Of that reign, and sweet the story:
All praise to Him, the Holy One.
Albert E. Vassar, St. Louis, Mo.

Cold Air the Best Skin Tonic.

A generous supply of cold air is one of the best skin tonics. Through breathing fresh cold air the appetite is stimulated and wholesome foods are relished. One has to exercise in cold air to keep warm. Then, too, the effect of brisk, cool air on the skin itself is invigorating.

Favors Health Marriage.

Surgeon General Rupert Blue of the United States Public Health Service recommends that states adopt laws that make necessary the presentation of health certificates before marriage licenses will be issued. Gen. Blue says that in his opinion more social problems will be solved by putting marriage on a health basis than in any other way. Young men wishing to "sow wild oats," he says, must be taught that fathers and mothers of the land will not trust their innocent daughters to them, if they are not capable of properly caring for wife and offspring.

Mind Over Body.—The influence of the mind upon the body is shown to be important as respects health, says Baltimore Sun. "Worry kills a cat," is approved as a wise saying. Anxiety, grief, gloom and depression of mind produce an injurious effect upon the nerves, the digestion, and upon the functions of the various organs. On the other hand, freedom from care, gaiety, cheerfulness and exhilaration promote health. Dr. Maudsley called attention to factors which physicians too often ignore, namely, the efficacy of simple means, as air, food and exercise, in fortifying against extraneous noxious agencies and insidious degenerations from within.

Health:—Now we are going to tell you something from an authority. Dr. J. H. Kellogg: "To sustain muscular work does not require an increase more than one-third above that required for sedentary work. Yet few of former class eat less than double the amount taken by the average professional man. It is not uncommon indeed to find manual laborers eating three or four times as much as the man who sits at his desk." What happens when laboring men eat so much food? It uses up part of their strength to digest it and work it through the body. And they have just that much less for work. And with this heavy eating there will be more or less ill feeling and doctor bills in due time. There is not a man living who knows more about this subject than Dr. Kellogg. He employs an army of workers and knows what he says.

The Medicine Cupboard.

Sir:—Some things we need in spring, some in the fall, but the need of every household all of the year is a medicine cabinet or cupboard, or even a part of a shelf in a pantry, says Tribune Farmer.

The main thing is to have it out of the reach of small and busy fingers. Here keep a bottle of any kind of remedy to relieve minor cuts and burns, and a bottle of lime water and one of olive oil for severe burns. Save all old soft linen for this cupboard, and a roll of antiseptic cotton is desirable. Several articles very useful many times are a small flask of whiskey, a bottle of camphor, one of aromatic spirits of ammonia for smelling salts and fainting spells, some good remedy for colds and coughs and any other favorite remedies.

A good pair of pincers is essential, as a needle or anything sharp quickly works itself into the flesh.

Near the medicine shelf or cabinet paste a list of poisons and their antidotes.

Health Notes.

Salt and water held in the mouth, after having a tooth pulled will stop bleeding.

Lime water is very useful in alleviating vomiting. It should be given every half hour in a little water.

If finger nails are brittle, rub in a little cold cream or dip them in warm sweet oil every night.

Less tea and coffee, more fresh water to drink, more fruit, less meat, more bathing and cheerful company will go a long way toward curing your headaches and rheumatism.

Pure Maple syrup or home made molasses of any kind given with bread is relished by children and grown people as well when suffering with colds, and this takes the place of cough syrup.

If you drink a glass of water with lemon juice squeezed in it every morning it will keep your stomach in good order and prevent you from having dyspepsia.

When very tired throw a wrap over the shoulders when sitting down to rest, as in this condition colds are taken as easily as when perspiring freely or sitting in wet clothing.

Sugar, lemon juice and the white of an egg, beaten together, is a common remedy for hoarseness. Lemon juice and glycerine, equal parts, or equal parts of honey and lemon juice, sipped slowly is a relief for the irritated throat.

Slippery-Elm Bark Tea.—Break the bark into bits, pour boiling water over it, cover and let it infuse until cold. Sweeten, ice, and take for summer disorders; or add lemon juice and drink hot for a bad cold.

To whiten hands which have become red, rub with strained lemon juice. Allow the juice to dry on, then wash the hands with warm water and oatmeal instead of soap. This will make them white and soft.

Work and Weariness.

We must not charge to work what is properly chargeable to other causes. Ordinary tiredness resulting from proper effort is not harmful but beneficial, enabling us to enjoy and digest our food and obtain rest and recuperation from sleep. Work in itself is a joy and a blessing. It promotes longevity. As a rule, people who work hard are not troubled with either indigestion or insomnia. Sound and true is the saying of Ecclesiastes, "The sleep of the laboring man is sweet, whether he eat little or much; but the abundance of the rich will not suffer him to sleep."

The conclusion is that both fatigue and efficiency depend upon the fundamentals of hygiene more than upon exercise alone, and that our aim should be, to use the words of Prof. Lee, "to make of labor a physiological rather than a pathological exercise."

Perhaps no means of lessening fatigue is of more importance than a proper supply of drinking water. The products of waste, carbon dioxide and lactic acid, are taken up by the fluids of the body and carried to the lungs and kidneys for elimination. The accumulation of waste products is often due to insufficient use of drinking water. It has been noticed in the army that the man who falls from heat stroke is the one whose canteen is empty.

Muscular energy depends largely upon three things:

1. The amount of fuel stored and the ability of the system to bring it into use.
2. The ability of the system to furnish oxygen to burn the fuel.
3. The ability of the system to carry off waste or other toxic substances.

Conversely, fatigue is due primarily to the failure of the system to perform properly one or more of these functions. First, fatigue may be caused by anything that interferes with the storage of fuel. This may arise from a lack of fuel. Under this head would come underfeeding, improper feeding, indigestion of food, lack of assimilation of food, and incapacity of the liver and muscles to store sufficient glycogen.

He goes on to show that food which does not furnish energy may lead to fatigue. "For example, cabbage is a very common article of diet, but there is little energy in it."—New York Times.

To Prevent Killing of Calves.

Representative Britten, of Chicago, has introduced a bill in Congress to prohibit the killing of beef cattle under two years of age. The aim of the bill is to increase the supply and therefore cheapen beef.

Mr. Britten says: "The number of calves slaughtered has increased 100 per cent. in the last ten years." "During 1911, eight million calves weighing 500,000,000 pounds, were slaughtered. Had these calves been allowed to live for two years, averaging 1400 pounds weight, they would have produced over 11,000,000,000 pounds of beef to supply the scarcity now felt."

Mr. Britten says that he believes the time is near at hand when the government will offer a premium on the importation of Mexican and Canadian cattle, to be fattened for market in this country. He has a provision in the bill giving the secretary of agriculture authority to make

rules and regulations for the interstate shipment of calves and young beef cattle for grazing and fattening.

Plant What.—Tree-planting societies which have done good work in several large cities of the country might well be emulated by those in rural districts, who realize the present waste of land suited only for tree-growing. In Norway the Bergen tree-planting society proposes to cover the mountain sides and the untillable areas of Western Norway with forests, as they were covered centuries ago. It has excellent prospects of succeeding, notwithstanding the extent of the undertaking, for it is assisted by wealthy contributors and timely government action. Since the organization of the society, thirteen years ago, thirty-six million young trees have been produced, of which more than twenty-six millions have been planted on ten thousand acres. There is a suggestion here for effective aid to the federal work in reforestation in this country.

Get the Habit of Saving.

Get the children into the habit of saving. It will grow by practice. They will soon take pride in the fact that they can save money just as easily as they can spend it.

Don't expect a big flow of milk from cows that stand out and shiver all day. They use their body energy to keep warm.

Grain Cleaned and Graded for \$1.00

Send for Free Book on Cleaning and Grading Grain. Then ask for size machine you want, sending \$1.00, and I'll ship 1914 Model Chatham, freight prepaid, with special screens and ridges for all grains. Grasses and Weed Seed where you live. Give it a month's hard test. If not satisfied, send it back and get your \$1.00. If satisfied, pay me any time before next October.

The "Chatham" handles all grains and grass seeds; takes out weed seed; separates mixed grain; leaves big, pure seed. Over 300,000 Chathams in use, and every owner satisfied. Write a postal note for my FREE copyrighted book, "The Chatham System of Breeding Big Crops," description, prices, terms, etc. Address nearest office.

MANSON CAMPBELL CO.
Dept. 13, Detroit
Kansas City Minneapolis

Quilt Patterns

Every quilter should have our book of 450 designs, containing the prettiest, queerest, scarcest, most grotesque patterns, from old log cabin to stars and puzzle designs; also crazy stitches and Cat. All postpaid, for six 2c. stamps (or silver dime); 3 for 2c.

LADIES' ART CO.
Block 102, St. Louis, Mo.

Kerosene Oil

150 Fire Test, Water White, smokeless, will not char wick. Shipped direct from independent Refinery, by barrel and 5 1/2 barrel lots. Write for prices. A. B. BIRCHARD, Warren, Pa.

DR. McGAHEY'S HEAVE CURE FOR BROKEN-WINDED HORSES. The only medicine in the world that will stop heaves in 3 days, but for a permanent cure it requires from one-half to one bottle used according to directions. \$1.50 per bottle. The Dr. McGAHEY Medicine Co., Kenosha, Wis.

For sale by J. K. Post Drug Co., Rochester, N. Y.

SKUNKS And all other Furs Wanted

I have been established in the raw fur business at my present address continuously for 17 years receiving thousands of shipments from all parts of the Eastern States and Canada. If you have never written to me for a price list, drop me a line and I will send you one posted throughout the season. Prompt remittance and highest averages for all your raw furs. References: Dunn's, Bradstreet National Bank and Bank of Montreal.

CHARLES A. KAUNE
294 Bridge St., Montgomery, N. Y.

Tree Protectors

Protect your trees from mice and rabbits. Price \$1.00 per 100; \$4.25 per 500; \$7.50 per 1000.

Green's Nursery Co.
Service Dept. Rochester, N. Y.

4 BUGGY WHEELS \$8.95

With Rubber Tires, \$14.45. Your Wheels Rebuilt, \$10.50. I make wheels 4 to 4 1/2 in. tread. Tops, \$6.50. Shafts, \$2.10. Repair Wheels, \$5.95. Axles \$1.25. Wagon Umbrella free. Buy Direct. Ask for Catalog M.

SPAT MICKLEY WHEEL CO. 505 F St., Cincinnati, Ohio.

20 Reasons Why You Should Investigate the **SANDOW** Kerosene Stationary ENGINE

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New England Makes a Great Showing of Fruit at Horticultural Hall, Boston, Mass.

Reported for Green's Fruit Grower.

A happy coincidence found the writer in Boston just in time to visit the 1913 New England Bi-ennial Fruit Show.

Just as I had finished writing my name in the hotel register and mentioned the name of Green's Fruit Grower, a very pleasant gentleman who stood nearby, politely suggested that I might be interested in the New England Fruit Show which he said was in session at Horticultural Hall. This cordial New Englander proved to be Prof. Gray of Amherst College.

It is needless to say that I was delighted to know that this unusual opportunity was available, and within a few hours I found myself an interested spectator at a very unusual display of New England fruit.

In spite of the fact that I had been permitted to witness some of the largest fruit shows of recent years, I was impressed with the wonderful display of New England fruit. I had no idea that such fruit could be grown east of New York State.

As my time was limited, I passed reluctantly from the first large hall with its hundreds of plates of the most beautiful fruit I had ever seen. This brought me to the most significant display of New England apples, pears, quinces and other fruits packed in boxes instead of barrels as the custom has been in the East.

If I partly closed my eyes, as the artists sometimes tell us to do, I could easily have imagined that I was in a Western Fruit Show. With my eyes wide open, however, and being surrounded by sterling New Englanders; one sniff of the delicious aroma arising from this highly flavored fruit, and the sound of the Huntington Avenue cars passing outside compelled me to recognize that this was a display of New England fruit.

A very high standard might have been expected because the requirements of entry were placed at a high mark. The conditions of entry required a high standard with regard to size, a minimum size being named for each variety, which fact insured a display of fruit of surprising size. Some of the judges told me that the prizes were given principally on quality, texture, and color. A quarter of an inch leeway in size between fruit from the northern New England States and that from the southern New England States, indicates how rigidly the standard of size was maintained. Over-large specimens did not count as prize winners as has been the case in some fruit shows we have witnessed. The entire display was one of genuine quality and no doubt in every case prizes were granted upon real worth, with color, texture and flavor as the first three requirements.

Of course a New England Fruit Show without lectures and discussions would be incomplete. On certain afternoons there were lectures on live fruit topics by experts from the New England Agricultural College and others, followed by keen discussions of the vital points of fruit growing. The able plans and work of those who had this important work in charge, with the intelligent co-operation of the New England fruit growers, made the New England Fruit Show really great and significant.

Competition was open to all the New England States, and one of the first requirements was that all the exhibits must have been grown in the New England States. The fruit shown in boxes was required to be wrapped individually except the top layers. The Agricultural Experiment Stations and other public institutions were not admitted to competition for the prizes offered. Though many of them displayed very attractive exhibits, the prizes really went to the real fruit growers of New England.

Some of the boxes and fruit packages were beautifully labelled (and this is a very important indication) as follows: "Gilt Edge Baldwins, grown by ——" "Fancy Maine Apples" "Hand Picked Apples" "Select Rhode Island Greenings" "New England Gravensteins" "Rhode Island Greenings from Rhode Island." Many of these labels were beautifully printed in colors and bore the name of the farm and the grower. The names of the farms were very attractive and interesting.

One very important display, was prepared by Mrs. F. A. Waugh and Mrs. F. C. Sears of the Massachusetts Agricultural College at Amherst, Mass. This display showed "Some forms in which apples find a ready market." This display was prepared in a masterly and artistic manner as might have been expected from these ladies. It included of course, apple pie, apple dumplings, baked apples and apple sauce. It also included very delicious apple jelly, apple cake, apple croquettes, apple and apple salad, apples stuffed with apple sauce, apple patties with a bright red cherry on the top, apple mint jelly, apple quince jelly, apples with sausage and apples pre-

pared in many other ways. These verses were printed on a card in this display:

"ORDER APPLES"

Apple! Apple! call for apples
Everywhere you go,
Scrutinize the bill-of-fare
And if Apple is not there
Call the landlord down with care.

He will come with smirking manner
With some overripe banana
Or a grape fruit sour as gall,
Tough and hard as old baseball.

Take no substitute, but grapple
With the question—
Call for Apple.

I understand that Mr. Green has maintained that apples and other fruits could and should be grown in a larger way in New England. The New England Fruit Show unquestionably demonstrated the fact that it not only can be, but is being done. With the many large markets within short distances in the east the New England farmer has an unusual opportunity along the line of fruit growing.

The New England Fruit Show, as was prophesied, proved to be a real "Glory to Old New England."—A Spectator.



Turkey wills dark meat to the old man and the liver to the baby.—Goldberg, in Rochester Herald.

Forest Leaves For Mulching.

Yesterday as I was driving through the park in the suburbs of Rochester, I noticed in the woodland that the leaves had been raked up into piles. On inquiry I found that these leaves were not to be given away, but that they were to be drawn away to be used as a mulch or as a covering for beds of flowering plants. There are few coverings so warm as leaves. I have known apples to pass safely through the winter when slightly covered with leaves and a little snow. Thus they are valuable for covering beds where spring flowering bulbs are planted.

I often wonder why leaves are not more often mentioned by the horticultural press as a winter covering for strawberries. Every year I see in the rural paper stable manure recommended for covering strawberries to protect them from heaving by frost during winter and late fall or early spring, but such stable manure is always full of grass and weed seed, thus in applying manure as a mulch

for strawberries you might about as well plant timothy and grass seed after you have carefully hoed and weeded the strawberry bed throughout the summer. But leaves, straw, corn stalks or tomato vines do not contain these seeds therefore these articles should be selected for covering a strawberry bed.

One objection to leaves as a mulch is that they blow away unless weighted down with cornstalks or sod or a spadeful of earth or stones.—C. A. Green.

Carloads of Apples for Sale by subscribers of Green's Fruit Grower: D. E. Fisher of Fleming Center County, Pa., has Baldwin, Spy, Ewalt, Greening, Bellflower, Rambo, Russet, etc., for sale.

M. M. King, Canandaigua, N. Y. has mostly Baldwins.

C. C. Coywood, Oblong, Ill. has 2 carloads of No. 1 Ben Davis for sale. Correspondence is desired.

George Payne, Henrietta, N. Y. has Greenings and Baldwins.

Apple Yield in the United States.

The estimated yield of apples throughout the United States for this year is 68,484,520 bushels.

That's a mighty big lot of this variety of fruit; but the quantity is just about one-half of what it was a year ago—so say certain experts.

The apples growing and ripening in the Pacific Coast States will be fully as choice as ever and buyers from all parts of the world are seeking their purchase; they know a good thing in the fruit line when they see it—and they have been seeing it for several years past. The Pacific Northwest apples can always be depended on to top the market.

Oregon's crop of apples will be about 75 per cent. of what it was last year; but the quality will be fully 575 per cent. better, it is believed.

Washington's crop will be 15 per cent. less than the 1912 crop; the quality will make up the difference in a financial way, for Washington's apples go to all parts of the eastern continent.

This is the way that well-known market report writer and statistician, Hyman H. Cohen, of Portland, sizes up the apple situation:

"Already the signs are visible which tend to show the coming season to be the most profitable that apple growers have witnessed. Contrary to the season just closing, there will be a worldwide demand for apples this season, and the highest prices for several seasons will in all probability be forced. Apple contracting is already showing the largest volume and at the best prices for at least two seasons. Europe, Asia, and Africa, together with the eastern portion of the United States, are already purchasing heavily, and only a small portion of even the early varieties have as yet been harvested. The apple market abroad promises to take care of the greatest amount of American apples ever sent in that direction, and at prices that will prove unusually profitable."

The total apple crop of Oregon for 1913 is estimated to be sufficient to fill 2200 fruit cars.

Washington's apple yield will be about 9000 carloads.

Idaho's supply of apples will total 400 carloads.

California's apple orchards may yield 3000 carloads.

Utah's growers say the crop this season will be about 700 carloads.—Pacific Homestead.

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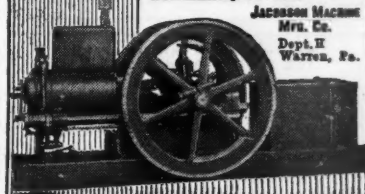
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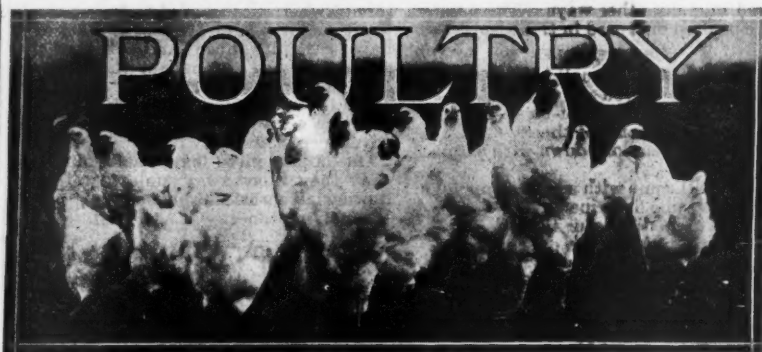
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Feeding for Winter Eggs.

There is nothing particularly difficult or mysterious about getting winter eggs, if you save the right kind of hens. But the general idea that anything that has feathers will lay eggs if only you can find the right sort of feed needs correction. The feeder who thinks he has another guess coming because he does not get eggs from a given method of feeding or a certain feed will generally find, when too late, that it was useless to try to get winter eggs from his stock at all. It is possible, by making a supreme effort, to get a few winter eggs from old hens but it does not pay. It is a comparatively simple matter to get them with early hatched pullets and, in some cases, with one-year-old hens. Something depends upon breed, but the statement will apply in a general way to all the larger breeds. While there are a multitude of rations and methods of feeding there are no essential differences between the successful ones because there are not "best" or indispensable feeds or ceremonies.

Poultry Notes.

Eggs in winter mean money, and the lack of them means loss. If you realize this thoroughly you will set to work.

Hens that are laying consume more feed than those that are not laying and in winter they need more than in summer. Give plenty of room in well ventilated houses.

Some hens have a born tendency to lay, while others have a born tendency to put on fat.

Egg-shells should be powdered and mixed with the mash; never give in a whole state.

One feeding rule is to give the hens half as much as they will eat of a morning, nothing at noon and a full meal at night.

As the weather becomes colder the eggs should be gathered several times a day.

Cabbages, mangel wurtz, potatoes, etc., make excellent green feed.

A little moistened food is relished, and will slightly increase egg-production.

It must not be forgotten that the food flavors the flesh as well as the egg.

There is no stock that pays a higher rate of interest on an investment than poultry, although many farmers consider it of little value.

Wheat contains a larger amount of albumen than any other grain, and therefore should be the basis of all egg-producing foods.

Give your birds plenty of green food in most any form. They like it and will tell you so by the egg basket and flavor of eggs, also. They even relish an apple chopped up, as yourself, and the saying is, "an apple a day will keep the doctor away."

Eggs may be flavored by the feed given to the hens. Breed has nothing to do with the flavor of an egg. Good flavors are produced by keeping hens in clean quarters and giving them good feed.

No poultry house is complete without an adjoining open-front scratching shed. Here, during bad stormy weather or severe cold weather, the fowls may be confined and if kept busy will be happy, healthy and what is more to the point, profitable.

In order to keep the system toned up it is best to feed some green food, such as refuse heads of cabbage, turnips or alfalfa and clover leaves steeped a few hours. Keep all drinking utensils clean and fill with warm water three times each day, especially in cold weather. Where possible give the turkeys all the sweet milk they can possibly drink. Clabber will also be healthful. They will stand about the trough and drink until the last.

Winter Layers.

The winter layers must have a diet rich in protein, and also considerable mineral matter. There are many foods that contain large amounts of protein, but the source that is most common is meat, beef scrap, cotton seed meal, wheat shorts, rice bran and wheat bran. Grains have considerable protein, but fat and carbohydrates are the leading constituents of grain. Laying hens will require some grain, but too much is conducive to laying on fat at expense of eggs.

Proper Housing of Poultry.

Not infrequently do poultry keepers complain bitterly of the failure of their fowls to show profit, when the whole fault lies in defective housing. Poultry lead an entirely artificial life when they live penned in a run, or even when at liberty and provided with a sleeping house—that is to say, they have their food provided them and do not sleep in the trees, as their natural instinct would teach them. It is simply the difference between sleeping in a house and sleeping in trees that upsets them. When they do the latter, they may not lay well but they keep their health. More than half the diseases with which fowls suffer are caused primarily by this defective housing.

The chief requisites of a house are that it should be weather-proof, so that whatever the inclemency of the season, the birds keep dry. It must be provided with ample ventilation and should have a sunny aspect. The sun is life to all animals, and the more fowls get of it in winter the better. Yet, sometimes, poultry quarters are placed in dark, secluded corners, and built to admit hardly any light. The owners seem to imagine fowls are like rabbits or foxes, and like to hide in the dark, but they belong to "the fowls of the air," and need light and air and plenty of it.

In buying ready-made houses, the flimsily built which do not last long should be avoided. If building at home or having a local man build it to order, the wood should be three-quarter-inch plank and of tongued and grooved boards. Plain-edged boards never fit so well as the grooved, and are more liable to harbor insects. Special attention should be paid to the roof. The eaves should overlap some three inches, and it is all the better if built of stouter wood than the walls.

A poultry house should always be, if possible, placed on ground sloping slightly away from it, then in wet weather the water drains away. If the ground is quite level the water coming off the roof shows a tendency to remain in the form of puddles. A trench should be dug to carry it away, or, better still, there should be a spout on the roof to carry the water away down to a down spout connected with a surface drain. It is important that the ground around the house, as well as the house itself, be kept dry, as fowls never do well on wet land. On no account should the roof be made of corrugated zinc. Such a house will be cold in the winter and hot in the summer.

For the floor, the earth needs to be beaten down quite hard and a dressing of some inches of sand or light, dry earth put on top. If the soil is clayey it is better to have a wooden floor, for it must be dry. In any case, observe scrupulous cleanliness, removing all droppings once a week and taking care there is never any smell.

Ventilation is a subject better understood now than formerly. We indulge in more of it ourselves and more for the fowls. Yet, for them as for ourselves, we must not forget that the thing can be overdone and that a good deal depends upon the location of the house and the outside temperature. In other words, wire a large part of the front of the sleeping house, but have a sliding shutter arranged so that it can be closed in the winter or when the weather is extra cold. If the house is of a lean-to pattern—indeed, in every case—it is well to admit all the ventilation in front, the only exception being in houses with a wide span roof where a little ventilation can be given at the top, but this is chiefly to let the bad air out.

A draft, we must not forget, is caused by having two windows or outlets of some sort directly opposite to each other, so that the air can blow through. When the front is more or less open to the elements, see that the back and sides have no holes or crevices for the wind to blow through. In summer the fowls should be given ample ventilation; in winter enough to keep the house sweet, and for the birds to breathe pure air. In some sheltered localities, half the front can be open throughout the winter, but it is impossible to lay down any hard and fast rule.

Perches should be at least two inches thick and all placed at the same level, for if one is higher than the other, all the fowls will try to get onto that one. They should be set about three feet from the ground and should not be nailed, but allowed to rest in slots fixed to the walls. This simplifies cleaning the house and the perches too, for they will want a dressing of paraffin in the summer time to keep the lice at bay.—J. S. Underwood, Ill.

Regular Feeding.

Always at a certain hour in the morning give the chickens their morning meal. In winter, warm up their water two or more times a day, by means of steaming water from the tea kettle. At noon give their mash. One heaping tablespoonful is mash enough at one meal for a hen if she is otherwise well fed. Once a week feed them the evening meal of parched and salted corn. Regularity in feeding helps the feed produce regular laying.

Roup.

D. E. Salmon's investigation of roup resulted in these discoveries:

"Treatment of sick birds requires much time and patience, and there is always the risk that they may carry the contagion for several months after they are apparently well. Prevention is, therefore, much more profitable. To accomplish this, measures should be continually enforced which will exclude contagion of all kinds. New birds and those which have been to exhibitions should be isolated and kept under observation for two weeks before they are put with the flock, and all animals and wild birds excluded so far as possible. The houses should be kept clean and dry and occasionally disinfected.

"If the disease appears notwithstanding these precautions, isolate the infected fowls at once at a distance from the well ones, and apply disinfectants freely about the house and runs. Also place sufficient permanganate of potash in all drinking water to give the latter a deep red color. If the disease appears of a severe type it is often better to kill the entire flock and, after a thorough cleaning and disinfection of the premises, to begin with new birds. This radical method avoids the retention of birds which may harbor the contagion and cause the development of subsequent outbreaks."

All About Us.

Editor of Green's Fruit Grower:—Having been a subscriber to your most excellent journal, The Fruit Grower, for nearly two years and enjoying its highly and magnificently edited pages on scientific fruit culture, propagation, diseases, remedies, etc., and fine articles on numerous other subjects by many in connection with the author, I for one feel that I was fortunate in learning even so late of this good paper. It is indeed a "Magazine with a Mission," and performing a great mission. Its worth to horticulture, and people is beyond computation. It is not only helpful and beneficial commercially, but entertaining and inspiring intellectually. The editor may justly feel proud of his labors thus, for such is like casting bread upon the waters.—C. E. Peetfish.

Remedy for Pear Blight.

Mr. Green:—For the last year I have been enjoying your valuable paper the Fruit Grower. I once thought I would lose all my pear and apple trees with blight, but I learned the sure cure which is:—Remove the soil from around the tree so as to form a small basin. Dissolve one pint of salt in a bucket of water and pour around the tree; do this once a week until the blight is cured which will not take longer than five or six weeks. Cut out the blighted limbs and burn.—S. W. Gregg, Ind.

Editor's Note: We know nothing of the salt bath method mentioned above on Green's Fruit Farm, where we are not troubled with blight of late years. Formerly when we saw a tree attacked with blight we simply cut out the diseased part, cutting one foot below lowest part diseased.

Pruning in Old Orchards.

Now is the best time to take out dead branches from old orchard trees. Pruning now will save extra work in the spring when time is precious. Moreover many insects and diseases will be destroyed. To make sure of it burn the limbs. Dead limbs provide excellent camping grounds for insects and diseases, says The Cultivator.

Always cut close to the trunk or main limb; do not leave a stub. The inner bark will then have the best chance of healing over the wound. Saw on both sides of the limb, so that the bark will not be torn off when the limb falls. Always paint over the wounds with tar or some sort of paint to prevent the escaping of moisture. Repaint them whenever it becomes necessary.

Practical Feeding

Written for Green's Fruit Grower by
J. S. Underwood, Illinois.

When eggs are high is the time when hens seem to cease laying. It is then that they become costly luxuries, because they are producing nothing and require a great deal more care. It is vexatious to own a large flock of beautiful birds that do not lay when eggs are scarce and the prices high, but much of the disappointment is due to the improper food, a lack of variety, and not to an insufficiency. They must have certain food, in order that they may have the material for producing eggs. Corn is the dearest kind of food when it does not promote egg laying, but when corn, meat and cut clover are given, so as to provide a variety, the combination may be cheap, because it makes the hens lay, though care must be exercised not to feed too much corn or even feed too much of anything, or too often.

Much attention is called to the fact that fowls must be provided with lime in its crude form, in order to supply shells for eggs. If the food is of a varied character, including bone and clover, there will be an abundance of lime; even the clover, which contains thirty times as much lime as corn, is ample. The hens must have a variety of feed, but must not be made excessively fat, and will prove profitable only according to the treatment given them.

Careful and judicious feeding must be practiced in winter to produce the proper conditions for laying. It is the work of securing their food that keeps them in health. During the summer their digestion is better, they have keener appetites and can stand their bodies whenever they so desire. When winter comes, and they have no exercise, they become addicted to the vices that originate from idleness. Feather pulling, egg eating and quarreling become habits. They will eat frequently, because there is nothing else to do. They not only become fat and clumsy, but also diseased, because of their inactivity. The first thing to provide in winter is a place for exercise, and the hens should be made to seek in some manner all the food allowed. The harder they have to work and scratch for it, the better. A mass of leaves or any kind of litter will answer.

The next point is how much food to give to a flock, say of a dozen hens. The old rule is that five pecks of corn will support a hen for a year, and that one quart a day for twelve hens is a fair allowance; but it is well known that one hen may consume even six pecks, and another only four pecks, hence any attempt to feed hens by fixing upon a certain portion of food will fail in securing expected results. They differ also in preference of food, and in their condition—a laying hen requiring different food and more of it than a non-layer.

It is very difficult to measure a mixed diet, but there is one safe rule to follow, which is to give them half as much as they will eat in the morning, nothing at noon and a full meal at night. For a dozen hens three or four pounds of wheat can be put in a trough, the birds allowed to eat until the last one walks away, then the quantity left over can be weighed, which will show exactly how much was eaten. Then the next morning give them half as much as they ate before, but scatter the food in litter and let them work for it. It is better to keep them hungry rather than otherwise. At night fill the trough full of all sorts of food that is at hand and suitable for the purpose intended, and let them eat until they walk away from it, then remove the remainder. In thus feeding the hens it requires but two or three days to fully understand the requirements of the flock.

Feeding in winter is more puzzling and perplexing than any other duty. To feed enough and not too much requires judgment, and though one experienced in feeding may have but very little difficulty, yet the novice makes a great many mistakes. Anybody can feed chickens—that is, throw down the feed and allow the fowls to eat as much as they like—but such a system is very harmful and results in the hens ceasing to lay and the owner of the flock becoming dissatisfied. The lack of profit is attributed to the hens, and the owner looks around inquiringly for the "best breed," hoping to secure some strain that will lay more eggs than others, while the scarcity of eggs is due to injudicious feeding.

For Winter Eggs.

In order to pave the way for winter eggs, it is necessary that the fowls be vigorous and healthy at the beginning of winter. Once in the proper condition, it is comparatively easy to keep them that way, says W. F. Purdue, in *Inland Farmer*. Then there should be a comfortable house for the hens to roost in—a house that is free from vermin and dampness and one that is sufficiently large to accommodate the fowls without overcrowding. Better try to keep too few hens through the winter season than too many. A house that has been large enough for one

hundred hens during the summer and fall, when windows and doors could be left open at night, should not shelter more than half that number during the winter months, when air becomes overheated and poisonous during the nights with most of the windows and doors closed rather closely. Fowls sweat easily under their thick coats and when let out into the cool morning air at the beginning of each day they become chilled. Severe colds are then likely to result. Of course the poultry house should be well ventilated, winter and summer, but it is not possible to admit as much fresh air during the winter months as in summer. Cull out all superfluous birds now and prepare them for market, then the ones that you keep over will have a fair chance to return a profit.

The problem of feeding the layers in winter is a big one. A valuable lesson in connection with this problem may be learned by taking note of the conditions that surround a flock of hens in the spring months, a season when all farm flocks usually produce lots of eggs whether they are receiving any special attention or not. The conditions at that season are: The weather is moderately warm, the fowls get plenty of exercise and fresh air, they have an abundance of green food, besides insects and some grain. By surrounding a flock with these conditions as nearly as possible in the winter we may expect to get eggs—not so many, perhaps, as in the spring, because it is not possible to duplicate one season in another. But we can provide warm quarters, feed such green food as is available, give animal food to take the place of insects, and arrange for the hens to get lots of exercise.

We should also remember that water is just as essential to laying hens as food. Hens must have plenty of water in order to produce eggs. During severe cold weather the supply of water must be renewed rather frequently in order to prevent its freezing.

HEN MANURE.

Great Fertilizing Value of the Droppings of Poultry.

Hen manure stands at the head of the list in value, except that made by pigeons. Dried pigeon manure runs as high as \$20 a ton. Fresh hen manure runs in value according to the feed used from \$4 to \$10 a ton. Sun-dried manure is worth \$5 to \$9 a ton, and air-dried \$9 to \$12 a ton.

Manures, like everything else, may do harm. They can not do harm when ordinary intelligence is employed in the use of them. All manures should be used in moderate quantities, as it is well known that to get the best results from manures they should be applied often and in small quantities.

It should be kept in mind that the best results come from a light coat put evenly on the ground after the plowing has been done, and then well worked into the soil with a disc. Pigeon manure is imported into England from Egypt, and the price reaches about \$30 a ton.

The drying would lessen the freight and make the product more easy to handle. The average hen on an average ration produces about ten cents' worth of manure in a year. That will be ten per cent. on her price at \$1. This is the lowest estimate where hens have been penned and the excrement analyzed.—Missouri Agricultural College.

Profitable Poultry Pointers.

Save all cull potatoes, cabbage and turnips for the winter poultry supply of green material.

The large, early birds of course bring the most on the market; and they also make the strong, vigorous breeders.

If you have roosters to buy this season, get them early—or simply take what "the other fellow" leaves after taking his choice.

Let the "fanciers" capture the prizes for fine feathers at the big poultry shows, but you go in for a strong, vigorous flock that will shell out the eggs, winter and summer.

Keep on the best of terms with the mother turkey hens by tossing them little treats of small grain, table scraps, etc., and you will experience less difficulty with the young turks when you wish to catch them for market this fall.

Any old hens that you have suspicion of being too aged for profitable egg production should be promptly marketed before the flock is fed up for winter laying. Old, infirm roosters should be sent over the same route. But feed all of them awhile before selling, confining them in a pen to themselves about ten days prior to the time for marketing.

Many people in spraying for mites, forget to spray the roosts from below—and thereby hangs a tale of useless spraying, as the little pests seemingly can cling to the underside of the roosts as well as the upperside and what are missed there will breed and overrun the whole building again in a very few days during the hot weather attending this season.—Inland Farmer



Make Your Hens Lay

You can double your egg yield by feeding fresh-cut, raw bone. It contains over four times as much egg-making material as grain and takes the place of bugs and worms in fowls' diet. That's why it gives more eggs, greater fertility, stronger chicks, larger fowls.

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Our machines were used exclusively in the original Philo System plant where over \$1500 from 60 hens in ten months has been cleared from the sale of eggs, baby chicks, and fowls, raised on a city lot forty feet square.

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Green's Fruit Grower Co.

Dept. A.

Rochester, N. Y.



The January, 1913 "Brim Full" Number.

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Our Leghorns again Supreme at the Rochester Exposition Poultry Show with birds from all over the United States and Canada we won 1 Cook, 1 and 2 Hen, 1 and 2 Pullet, 2 and 3 Cockerel and 2 Pen. A few fine Cockerels at \$3 and \$5 each.

ABOUT OUR BARRED PLYMOUTH ROCK BIRDS: We have just added a fine lot of Barred Plymouth Rock cockerels and pullets from the celebrated strain of Hattie Nicholson. These birds are from the poultry specialist who has taken prizes at New York and Boston. Some of these birds will be offered for sale. Please notice that our prices for Barred Plymouth Rocks are \$2.00, \$2.50, \$3.00, \$5.00 and \$10.00 each, according to grade.

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BIRDS ARE CAREFULLY CRATED. We have had experience for nearly twenty years in shipping birds and have thus far been eminently successful. Our birds have gone safely thousands of miles, some of them crossing the continent and arriving in good condition.

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Downfall of the Mighty or the Fate of the Bantam Rooster.

By C. A. Green.

The lower animals possess many of the characteristics of human beings, such as jealousy, affection, appreciation of kindness and affection of superiority.

This affection of superiority is clearly shown in the following biography of a Bantam rooster.

We had at Green's Fruit Farm for the amusement of the children a young yellow Bantam chicken. Being petted by the children he became tame. At an early age he assumed a pose of importance as though he were the owner of the entire premises. All proceeded orderly during the first year for the Bantam had no rivals. But the next year a covey of Barred Plymouth Rocks were hatched on the place and had the freedom of the grounds. King Bantam lorded it over these helpless infant chickens and their worthy mother. His manner indicated that he was obsessed by the thought that since the premises were his, if he permitted the existence of the young brood it must be with limitations.

In the young brood of chickens there happened to be one cockerel who grew rapidly to an age when he had a strong impulse to crow, but his efforts were feeble on the start. Our Bantam king objected to the crowing of this youthful aspirant and proceeded to peck him in the face with his sharp bill whenever he attempted to crow or to make himself conspicuous. The young Plymouth Rock cockerel stood a lot of abuse from King Bantam for several months with as good grace as possible, slinking off into the hedge row whenever his enemy made his appearance. King Bantam did a lot of crowing in these days of conquest over the younger rooster. King Bantam was a comical looking fellow at all times. Being very small he held his head high in the air so that he had the appearance of looking at the stars. When he crowed he almost tipped over backward.

Time effects changes in many things on earth. Time effected changes in the size and ability of the Plymouth Rock cockerel. He increased in bulk and valor until on a fatal day when the Bantam made a rush at him to drive him off of the place, he had the courage to stand his ground and accept the battle without attempting to run away as he had done on former occasions. In this battle King Bantam was defeated. He was unable to drive his opponent through the hedge row. He moved away a short distance where he crowed as usual, but his crowing was not so boisterous as formerly.

After the above event for days and weeks there was trouble between King Bantam and the Plymouth Rock cockerel. Meanwhile the Plymouth Rock continued to increase in size and strength until finally he was the accepted ruler of the place, King Bantam being utterly dethroned. Alas, what a change! It is true King Bantam still held his head high and continued to crow often but he was compelled to do these acts in secluded retreats. He was not allowed to accompany the other fowls in their promenades through the grounds in search of bugs and other items of nourishment. King Bantam could be seen at a distance of five or ten rods, marching around often in a circle, desiring to be in closer communion with his fellows but receiving no mercy at the hands of the younger cockerel.

As winter approached the Plymouth Rock cockerel had assumed monstrous size, about twice that of the Bantam. He could have picked up King Bantam and carried him off had he so desired. Formerly King Bantam had shared the perch in the henery with the Plymouth Rocks, but now he was denied entrance to that aristocratic perch. When he attempted to enter the henery he was driven out forcibly by the younger but larger cockerel, thus he was in danger of freezing on cold nights on his cold perch outside.

The enmity between the two roosters seemed to increase as time passed. One day I saw King Bantam flying as though for his life, blood streaming from many wounds on his head, followed at a distance by the larger rooster. King Bantam dodged into a bed of shrubbery near the door of our house where the large rooster left him. He remained there in hiding for some time but finally reappeared crowing as lustily as ever.

The wise turkey roosts high and fattens slowly these days.

Give Somebody Else a Chance.

"You've been courting me now for a number of years, George," remarked a girl to a young man, "and I want to make a little leap-year proposal."

"I—I am not in a position to m-marry just yet," stammered the youth, "but—"

"Who said anything about marriage?" interrupted the girl. "I was going to propose that you stop coming here and give somebody else a chance."—Philadelphia "Inquirer."

Santa Claus.

Written for Green's Fruit Grower by Albert E. Vassar

I wonder why old Santa comes,
And brings the skates, the swords and drums,
The harps the dolls and picture books,
And always has the cheerful looks.
We never do pay him any think,
Yet he does have a cheerful wink,
And he does come in snow or rain
To leave the things and off again.
And never was he known to fall
From houses big or chimneys tall,
And though he's very big and fat
Gets down the chimneys with his pack;
And if he finds no kids awake
Oh then of course he's sure to wait
Until we're asleep 'tis so, because
You know he is old Santa Claus.
I'd like to have him stay right here
And keep us happy all the year,
But if we always had the toys
We wouldn't have the Christmas joys.

Enormous Chinese Hens' Eggs.

Consul Williamson, stationed at Aung-tung, China, has a well established reputation as a reliable and conservative American consul, who reports things as he finds them; otherwise his latest report to the Department of Commerce would place him in the list of summer liars or at least weavers of fairy tales. He gravely reports that the hens of China think nothing of laying eggs running five or six and even four to the pound.

"It may be of interest to breeders and egg farmers in the United States," says Mr. Williamson, "to know that I have seen within the past week eggs weighing over four ounces, produced by an ordinary hen of no particular breed, fed on corn and kept in a confined inclosure. This, however, is not a daily performance. The fowl referred to is a black hen, of no special breed, but resembling a Langshan. She lays an egg weighing four ounces or over at least every third day and lays an egg every day for about a week or ten days, when there occurs an interval for over three days, during which no eggs are laid. The smaller eggs average six to the pound. The shell is brown, with a circle of dark spots near one end.

"Other hens bought in the market average six eggs to the pound, with white or brown eggs, there being no standard of course. What these hens could do if fed and cared for scientifically cannot be told, but they should do wonders.

Preparing for Cold Weather.—The time is here again when we must get our hen houses in order. The scratching shed has been of much help and comfort to us in past years, says Practical Farmer. It is covered with oiled muslin which admits much light and keeps out the wind. But the covering does not seem to last long. We have to renew it every other year at least, and this is some trouble and expense. Last year we gave the shed a concrete floor. This will be covered with four or more inches of dry loam or muck, then with a coat of straw, and in this all whole grain is fed day after day. We should carefully look after leaky roofs. Moisture is the one thing we do not want in our poultry houses. Neither do we want direct drafts. Open fronts and muslin covers are all right.

"Ol' Nutmeg's" Sayings.

Written for Green's Fruit Grower by Joe Cons.

The winds blow chill 'erost vale an' hill,
Dame Natur' gits an airin';
Ol' Winter's knockin' at the door—
How is your wood pile farin'?

Don't tell your troubles, whistle 'em.
Sometimes by goin' too fur you come to grief.

Don't be a kicker—it puts corns on the mind.

Even if you can't smile 'tain't necessary allus to frown.

Don't look fur the dark side; it's bad fur the eyesight.

The man who borrows trouble pays a mighty high rate of interest.

If you can't take the cake try fur a nice piece uv Johnnybread.

Don't take a back seat, unless you're afeard uv the hose's heels.

The feller with a smile gits in where scowlers fear to tread.

He who tries to work his friends is mighty soon out uv a job.

'Taint becuz a settin' hen is uncommon contrary, she is simply onto her job.

If you are goin' to air your opinions you'd better use one uv the pop'lar airs.

The feller who looks fur a soft snap is apt to hev a hard time findin' it.

Uv course money talks; it's gittin' hold uv it where the tonguetied part uv it comes in.

Liars may be born an' not made, but lots uv folks we know act jest like the natteral product.

Ev'rybuddy knows thet honesty is the best pollery, but occasionally a man is found who wants to fool himself.

The course uv true love would run a good deal smoother if so many didn't try to go 'erost lots.

Give some men plenty uv rope an' they won't wanten hang themselves, but the one who give it to 'em.

Some folks in the neighborhood would step over an' borren their neighbor's

character of there wuz any way uv gittin' at it.

It may be true thet the autymobile is takin' the place uv the hoss, but nobuddy ain't heerd but what the hoss is perfec'ly satisfied with the arrangement.

Who blames the turk' for roostin' high
When holidays are drawin' nigh?
When rain an' snow an' cold gits round
'Taint healthy roostin' near the ground!

The Country's Apple Outlook.

The outlook is distinctly for an "off year" crop of apples. This is to some extent an effect of the generally abundant crop of 1912 in the more important commercial districts, which interfered with the formation of fruit buds in orchards where full vigor of growth was not maintained by adequate cultivation, fertilization, and spraying, says William A. Taylor, Chief Bureau of Plant Industry, United States Department of Agriculture. Untimely frosts and in some sections excessive rains at the blossoming time reduced the set of fruit on important commercial varieties in practically all the important districts, both east and west. East of the one-hundredth meridian the prolonged high temperature and deficient rainfall, which in considerable portions of the territory still continue unbroken, have prevented that development of large-sized fruit which sometimes occurs in a light crop year.

In scattered localities and limited districts the conditions are more favorable than throughout the country generally, and where thoroughly efficient culture and spraying have been practiced the prospective yield and quality of certain varieties are promising. This is the case with Greenings and Spies in the Lake Region, York Imperial in southeastern Pennsylvania, Pippins in the Blue Ridge section of Virginia, and Jonathan in portions of the Ozark region. Baldwin and Ben Davis, which are the varieties most largely represented in the older orchards of the "barrel" apple territory, are generally reported light in yield.

The Rocky Mountain and Pacific apple districts, which constitute the distinctive box apple territory, generally report the crop condition as considerably lower than last year. The large increased area of orchard now coming into bearing age each year in the Pacific Northwest tends to counterbalance this, however, so that the outturn of fruit in that region is likely to be heavier than the condition figures would indicate.

Reports regarding the apple crop in foreign countries indicate greatly reduced yields in Canada and in Great Britain, France, and Germany. The outlook for export demand for merchantable apples is excellent.

Present indications are that the entire product of sound and clean fruit of good keeping quality will be needed to meet the consuming demand.

Long continuance of high temperatures or of moisture deficiency beyond September 10 would be likely to cause a material lowering of both quantity and quality of apples in barrel districts.

Making Vinegar.

After all that is said and done, we occasionally meet perplexing conditions in this seemingly simple work of vinegar making. There often come to us for the family supply of vinegar those who have put a barrel of cider into their cellar one, two or even three years before but it has never turned to vinegar. In such cases we suggest that they get a quantity of "mother" from vinegar of good strength and place it in a part or all of their old cider. Or a quantity of strong vinegar mixed with three or four times as much of the cider will often bring about favorable results. A good way to keep up the family supply or when only small quantities are sold, is to keep the barrel about half full and whenever you draw out a quantity add to the barrel an equal amount of cider that has passed the first fermentation. Then there comes the woman who had cider placed in the cellar at apple harvest, but before the spring-time came John and the boys had turned it down their throats. Our only suggestion in such a case is that John be reformed. But about the most discouraging thing is to discover some morning that a hoop has burst and your full store of excellent vinegar has gone to waste. The ordinary iron hoop is a short lived thing on a vinegar barrel. Hoop your barrel with old buggy tires or iron of similar weight and cease to worry for many years, says C. H. Sapp, in Farmer's Guide.

Director Maine Agricultural Experiment Station.

A great many of our American people are under the impression that our garden strawberry is of European origin. This is not so; it has been proven that it is derived from the Chilean berry, which is native to the Pacific Coast.

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AUNT HANNAH'S REPLIES

Going Home For Christmas.

And I care not how cold be the weather,
If it's snowing I will not complain,
For we're going to gather together
This crispy, cold Christmas again.
And the old house with mirth will be ringing,
Will ring to the echo with glee,
And we'll celebrate, too, with some singing,
Ah, what a gay time there will be!

And we'll feast on an old-fashioned dinner,
For father a turkey will kill,
And mother at cooking's a winner—
Her meals would an epicure thrill.
Oh, the thought of it sets me a-tingle—
That scene of rejoicing and cheer—
When we rally again round the ingle
In that family reunion each year.

The old home at Yuletide is calling,
Its echoes reach many a shore,
And the city then on me is calling—
It ne'er seemed so empty before.
So tonight, boys, I leave for the valley,
For the happy old homestead of yore,
Where the loved ones this Christmas will rally
In a family reunion once more.

Husband Wanted.

Dear Aunt Hannah:—A sample copy of Green's Fruit Grower just came to me, and your column was the first to meet my eye. Do you think it absurd for a woman of 57 to want to be married? I have a beautiful farm, which I cannot manage myself so I have rented it. I would like to sell, but would rather live on it again. A man with money, practical knowledge of farming, commonsense, and the fear of God, could be happy making a comfortable living. Farming pays nowadays and is "an ideal life," I think. I love out-of-door work, and though I have lived all these years single, I can see that it was better. My father needed me and I would be a better wife now than when I was younger. Are you discouraged trying to find "mates?"—Subscriber.

Aunt Hannah's Reply: The above letter and many other letters that I have received teach me that there is a lack of opportunity in this country for young or elderly people to get acquainted in a way to lead to happy marriage. It seems to me that the people of this country do not appreciate the importance of marriage. To me marriage means much in the life of every man and woman, and yet lovers are made fun of and courting is frowned upon. Last Sunday my pastor said that it had been charged of a certain church that its Young People's Society was simply a sparking society. "Well," he exclaimed, "supposing it is. Perhaps it would be better if all of the Young People's Societies were sparking societies." Then, the pastor continued, "It was in such a society as that where I found my beloved wife. If I had not found her at such meetings I probably would not have discovered her at all, therefore you can estimate how much I would have lost in that event."

Though I am something of a match-maker and have aided to come together those who are matrimonially inclined, I do not see how it is possible for Green's Fruit Grower to proceed to act as a matrimonial bureau, though both myself and the publisher would be glad to do so if it could be done without injury to the standing and reputation of the publication. In fact I would be assuming a great responsibility in handing over a letter which I might receive from a man asking a wife, to a lady correspondent or vice versa, for it is impossible for me to know the individuals who are corresponding with me and who live in distant parts of the country.

No, I do not consider it strange or absurd that a woman of 57 years should want to be married, nor that a man of 70 years would want to be married. Marriage is the natural state of men and women. We all desire a home of our own and how is it possible to have a home without a wife or a husband? But for me to undertake to get a husband for any correspondent or a wife for another correspondent is a problem which I have not yet been able to solve.

It is clearly the duty of the church to furnish opportunity for young people to meet and get acquainted with a view to matrimony. The church which frowns upon courtship or sparking is making a serious mistake. If some man of wealth in every village or city would attempt each winter season to inaugurate some form of entertainment in the local church with a view to bringing young people together and making them well acquainted with each other, I believe it would result in much good to individuals and the country at large.

This is What He Thinks.

My Dear Mr. Green:—I have been a reader of your excellent publication, Green's Fruit Grower, for several years, and I have often thought I would write and tell you how much I appreciate all

the good things I find in it every month. I am not one of those who wait till a man is dead before mentioning his good works and I want to say that no publisher of the literature of today is doing a greater work than are you for good to the many who receive the monthly visits of Green's Fruit Grower. The pure tone of its articles and the sound—shall I say horse sense they contain are just what is needed in our day when so much that is published is anything but edifying or useful. I am not a fruit grower, thus there is much of the matter of this journal that I know little about. But when I strike the signed sketches and paragraphs of C. A. Green, I find in many of them, short as they are, as much of food for thought as I find in some of the whole sermons I hear on Sunday.

Mrs. Findlay always looks for Mrs. Burleigh's department. She finds much that is interesting there.

I remember a very pleasant afternoon chat that I had once with the publisher of Green's Fruit Grower when we sat on the "Roof Garden" of the Men's Club at Chautauqua. We were talking about the various departments and features of that publication. Aunt Hannah's department was mentioned and I said: "Aunt Hannah gives some mighty good advice to her correspondents."—A. T. Findlay, Philadelphia, Pa.

A compressed air cushion transmits energy from the motor to the plunger in a new electric rock drill, which is said to combine the ruggedness of the steam drill with the flexibility of electric power.

In a double ended locomotive or novel type built for use in Tasmania, the boiler and firebox are carried on one set of wheels in the center, while the cylinders and driving wheels are under tenders at each end.

An electric cooking range tested experimentally in several United States warships has proved so successful that similar ranges will be installed on all new vessels and several old ones.

The London Chamber of Commerce is urging the government to establish a national seed testing station, as seeds must be sent to the continent for testing as to purity and germinating qualities.

For feeding horses a bakery in Germany daily turns out 20,000 loaves of bread made of rye flour and sawdust, the latter being first fermented and chemically treated.

Save:—There is a distinct moral and mental value in the practice of sensible economy. A college president puts it this way:

There is no greater steady influence for young men than a growing account in some good bank. There is a sense of proprietorship and responsibility in buying a certificate of deposit, while a savings pass-book is an anchor to hold a boy steady in the shoal waters.

Polished:—Yesterday at the accustomed hour the fussy little man approached his favorite shop, eyeing with favor the tempting fruits displayed in front of the window. When he was nearing the door, however, he halted and his smile of anticipation froze slowly into an expression of horror. For, in the doorway stood the proprietor, holding in one hand a golden pear and in the other a discouraged-looking towel. Perhaps he was dreaming of sunnier climes as he raised the pear slowly, frowned upon its dullness and then spat upon it with lamentable accuracy. Then he polished it until the tired towel brought forth a shine, and dreamily picked up the next pear and repeated the process.

The fussy little man waited to see no more. He turned from the doorway and staggered towards the street.

"I don't believe I want any pears today," came the weak but fussy comment a moment later from a man who was supporting himself with the aid of a lamp post. "Safety first, avoid accident."

Increased Fruit Prices in London.

According to the London Daily Mail the drought and a consequent great shortage of supplies of fruit and vegetables at Covent Garden Market, at London, has caused all prices to go up enormously. Spanish greengages are selling for \$4.36 to \$4.86 a half bushel, which is twice the usual price.

The first consignment of Victoria plums from Kent arrived on August 12th and realized \$2.43 a half bushel, whereas in previous years the price at this time has rarely risen above \$1.21. The most extraordinary increase is in regard to French beans, which are bringing \$4.86 per hundredweight (112 pounds), ten times the average price in previous years, while frequently they have been sold at 24 cents per hundredweight.

American pears are \$7.04 per barrel, when \$3.64 is the usual price. Kentish raspberries, usually 10 cents per pound basket, are realizing 24 cents. U. S. Consular Reports.

Pruning Peach Trees.

Peach trees should be trained or trimmed to have low heads or tops, branch low 15 to 20 inches from the ground; thus the trunk will be protected from the sun; the fruit is much more easily picked, trees much less liable to break down, much easier to protect the buds. I predict that the time is not far off when we learn how to protect peach trees and grow peaches every year, says Jacob Faith, in Colman's Rural World.

I am often asked what degree of cold will kill peach buds. Fifteen degrees will kill most peach buds, but it depends much on condition of the buds and atmosphere. I have seen them killed at 12 degrees, also seen them endure 20. I am also asked what degree will kill peach trees. Thirty degrees will kill most peach trees, but like buds, condition of trees varies from 25 to 35.

Just a few weeks before his death a friend asked Mr. Williams the secret of his successful business career.

"Thorough investigation," he replied. "Making money is easy if you carefully investigate the propositions that come up all the time in the course of business."

This motto, "Investigate," he instilled into his wife, and, being a woman of excellent judgment, her management of his affairs has been highly successful.

Development of Reason.

If a thousandth part of what has been expended in war and preparing its mighty engines had been devoted to the development of reason and the diffusion of Christian principles, nothing would have been known for centuries past of its terrors, its suffering, its impoverishment and its demoralization, but what was learned from history.—Horace Mann.

Fur Farms.

The muskrat furnishes about 10,000,000 pelts a year for what is known, when it is dressed and dyed as "Hudson Bay seal." The marshes of the United States and Canada can be made to produce about fifty muskrats per acre per season.

In the case of the beaver, it is said that there is small chance of raising the animal in captivity owing to its tree-destroying habits and its nature of roving over vast tracts. However, the Canadian government is endeavoring to encourage beaver-farming, supplying the original stock at a nominal sum.

The skunk is rapidly growing in favor and is being raised quite extensively. Skunk pelts are valued and graded by the amount of white hair upon the skin, the white hair being useless.

The total annual output of otter skins in America is now 120,000 and the animal is easily domesticated.

The tiny mink furnished over half a million skins last year, and many of the skins brought ten dollars each.—Detroit News.

"My friends," fervently exclaimed one of the temperance spellbinders in the recent campaign for local option in an up-State county, "if all the saloons were at the bottom of the sea, what would be the inevitable result?" And from the rear came the loud and emphatic answer: "Lots of people would get drowned."—Gargoyle.

Millstone Around a Tree.

At Sheldon's Mill, N. Y., there is a very comfortable seat of stone around a huge tree which puzzles visitors, as the stone is natural, without a single break to show how it got around the tree trunk.

The story is that a discarded millstone lay on the ground for many years and a seed blown by the wind dropped into the core of the stone and grew there, finally growing into a tree, filling the hole in the center of the stone, and as the tree grew in size the stone was gradually lifted from the earth, making the unique seat.—Rural Farmer.

Hard on the Choir.

"And did you have Christmas music at the church?" asked the brother just returned for the holidays.

"Wal, no," said the squire, "can't say we did—'est singin' by the choir."

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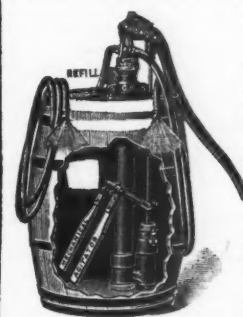
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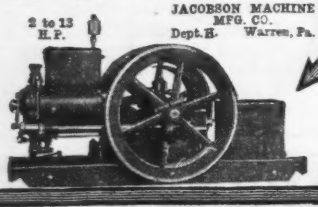


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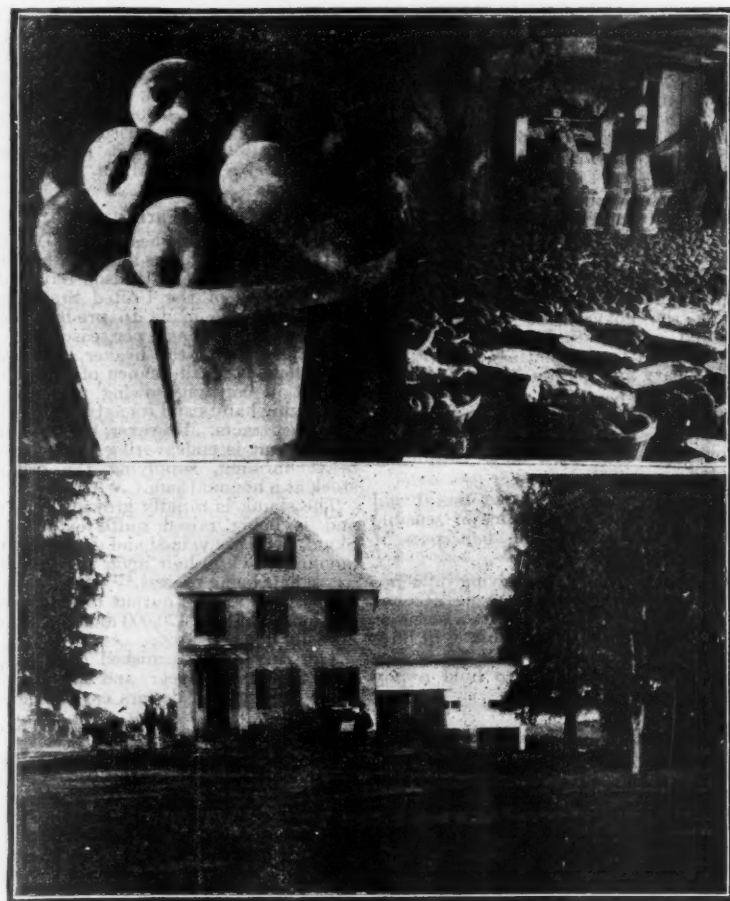


Letters From the People.

"Prudent questioning is the half of knowledge.—Proverb.

Best New Hampshire Orchard.

Green's Fruit Grower:—Am sending you some pictures, which I took a few days ago, at Elmer Parker's fruit farm in N. H. He has three big orchards of peaches, 1900 trees in all, a few of these are too young to bear, the greater number were loaded with perfect fruit altho nearly everyone else lost their fruit either by frost or drouth. Mr. Parker saved all of his. To prevent frost, he burned smudges at night and while hundreds of other orchards in this section are destroyed by the brown tail moth caterpillars, Mr. Parker sprays in August and his trees are perfectly free from the pest and his apple trees hang as full as the apples can stick on, all number one fruit. We failed to find any on the ground under the trees, also to find a worm hole. His Gravensteins brought \$3.00 a barrel and he says his red McIntosh's will bring more than \$5.00. We went all over this farm, also



Products of New Hampshire Orchard.

visited the big barn where the sorters and packers were busy. No. 1 picture shows a corner of the barn and part of the 500 baskets of peaches which were waiting to have the heads fastened on. Mr. Parker expects to have 5000 baskets of number one fruit to ship; the varieties are Elberta's and Crawford's. No. 2 picture shows a basket of Elberta's which were to be shipped the next morning to Cornish, N. H.; it took just 40 to fill the basket, to President Woodrow Wilson, with the compliments of the shipper, showing what can be done in the good old Granite State. No. 3 is the house and barn; the house is fitted with all the modern improvements and altogether it is an ideal farm. The farm adjoining is owned by Mr. Parker's father and brother, and altho smaller is run on these same first-rate methods; a cooper shop is on the premises and they make their own barrels. It was the grandest sight I ever saw. The peach trees are all low, so all the fruit can be picked while standing on the ground, no ladders being allowed. The ground under the trees is kept harrowed, and no grass is allowed to grow there. This is no doubt one of the best peach orchards in the state.—C. Frank Stevens, N. H.

Vastness of the Universe.

Editor of Green's Fruit Grower:—We are told that light, although apparently visible instantaneously, really requires an appreciable time to travel. That a flash of lightning occurring on earth would not be visible on the moon till a second and a quarter afterwards; on the sun till

eight minutes; at planet Jupiter, when at its greatest distance from us, till fifty-two minutes; on Uranus till two hours; on Neptune till four hours and a quarter; on the star Vega, of the first magnitude, till forty-five years; on a star of the eighth magnitude, till one hundred and eighty years; the star of the twelfth magnitude till four thousand years—and stars of this magnitude are visible through telescopes. The writer further says that he is confident that this flash of lightning would not reach the remotest heavenly body till more than six thousand years—a vastness beyond the capacity of the mind of man to contemplate.

Pascal's definition of the universe is that its center is everywhere, and its circumference nowhere. This being the case then, light from the remotest heavenly body would not reach the earth, supposing there to be no impediment to its transmission, except distance, in six thousand millions of years. Nor is that all; it would never reach it. Nor do we stop here; after six thousand millions of years travel, or a million of times that period, at the rate of nearly two hundred thousand miles in a second, it would not have made any advance toward reaching it. The reason of this is, that between things finite and things infinite there is no common standard of measurement. For example: not all the years that all the arithmeticians in the world could number

year here, crops are light. My last crop was over 90 tons of green fruit on 20 acres besides a good crop of apples and other fruit on my other 20 acres. Do you wonder that farms sell here for \$500 per acre?—R. L. Austin, Washington.

Editor's Note: The sample of evaporated prunes sent me by Mr. Austin were superb.

HEARING CORN GROW.

Interesting Experiments.

Editor Green's Fruit Grower:—On page 4 in the September Number of Green's Fruit Grower the article headed Can We Hear Corn Grow, sends me back to my boyhood days 45 or 46 years ago. I was raised on a farm and took quite an interest in seeing the grain, vegetables and flowers grow. I had heard that if the dust from the tassels of the corn did not get on the silks of the ears there would be no grain on the cob. As I had no education at that time and but very little now. I knew the names of the different plants but I did not know the names of all the different parts of the plants, so I will write this as I thought it then.

Wishing to investigate for myself I gave the different parts of the corn a name to suit a boy's notion. I called the tassels its head, the ears its face, the silks its whiskers, and the kernels its teeth. Then I said to myself, if the dust from its head does not get in its whiskers it will have no teeth. I then began to investigate as best I could to find out if this saying was true. I took five pieces of cloth large enough to tie over five different ears of corn one on a hill; I tied the cloth over the five ears before the silks could be seen and before the tassels blossomed. I watched them very closely twice a day and when the silks came out I left one ear covered so no dust could get to the silks at all. I took the dust from pop-corn and put it on the silks of one ear, the dust from sweet corn and put it on the silks of the second ear, and mixed the dust from pop-corn, sweet corn and yellow flint corn and put it on the silks of the third ear. Then I mixed the dust from white dent corn, sweet corn and spotted pop-corn the latter I got at a neighbors as our pop-corn was rice corn, this dust I put on the silks of the fourth ear. This finished my experiment.

So I waited for results. I left the ears tied up so as to leave room for the ears and silks to grow, but so no dust from the field corn, which was Yellow Dent in that field where I tried my experiment, could get to the silks of the ears I was experimenting with. I marked each ear so I knew what kind of dust had been put on each ear of corn. I left the cloth on the ears until the silks had become dry, then I removed them, when the corn had ripened so the husks were yellow I then examined the corn which I had experimented with. I found that the ear that the cloth had been left on and no dust from any tassels had been put on the silks just remained a cob with no corn on it. The one I put the dust from the pop-corn on had pop-corn kernels on a Yellow Dent cob. The one I put the mixed dust from pop-corn, Sweet Corn and Yellow Flint corn on the silks had kernels of all three kinds of corn of which I had taken the dust from, it also was a Yellow Dent cob, but there were no Yellow Dent kernels on the ear, and the one I put the White Dent dust, the sweet corn dust, and the spotted pop-corn dust on the silks also contained kernels of all three kinds of corn that I had taken the dust from the tassels, and no other kind, while these ears of corn were not entirely perfect they were nearly so. I thought that the ears being tied up with the cloth so long had something to do with checking the growth of the corn ears.

The next year I tried my experiment in a different manner. I selected a good piece for corn about 12 or 14 feet square and took four different kinds of corn and put one kernel of each kind in each hill planted; the result was I had a piece of corn that nearly every ear had all four kinds of corn on it.

I had also heard the remark that we could hear the corn grow. To this I will say I also investigated in my own way, and found on a very still day no sound could be heard, but when the air was stirring and the stalks of corn were bending back and forth I could hear a kind of buzzing and crackling sound quite plain but faint. I watched and listened for several days. I found that this sound was produced by the stalks slipping in the leaf casing that is around the stalks and also by the leaves rubbing together, so I think that this sound was taken to be made by the corn growing so fast.—A. B., Oregon.

What He Needed.

An Emporia girl was complaining to her chum the other day of the way her steady was treating her.

"Why don't you give him the mitten?" the friend asked.

"It isn't a mitten he needs, it's a pair of socks; he's got cold feet," was the answer.

Successful Apple Growing at Hilton, N. Y.

A Personal Interview by C. A. Green.
The editor of Green's Fruit Grower recently interviewed Mr. Cross, whose orchards lie three to four miles from Lake Ontario and about twenty miles west of Rochester, N. Y., near the village of Hilton. This is one of the noted apple and peach growing sections. The apples grown near Hilton are of such high grade, owing to the culture and attention given to the trees, that the owners are able to sell their fruit at much higher prices than average apples are sold at.

"What varieties of apples do you grow?" I asked.

Reply: "Baldwin, Greening and Spy mostly."

"Why do you not grow the Hubbards?"

Reply: "The Hubbardston is an apple of fine quality, large size, good color, the tree is healthy, a good grower with a fungus resisting leaf of leathery character, and yet the Hubbardston is not a favorite with apple orchardists, just why I cannot tell. It ripens in November, a season when ripe apples are in demand and when the Greening, Baldwin and Spy are not ripe enough to eat. There should be a demand for it. Perhaps it is not well enough known in the markets since it is not largely grown."

"What do you think of the policy of planting varieties like Banana, McIntosh, Red, Fameuse, Shisawsee Beauty, Delicious and others of that class, all superior in quality to Baldwin and Greening?"

Reply: "I consider Baldwin and Greening apples of good quality. As far as I can see the people who buy apples

influenced by that large body of water, which modifies the temperature not only in winter but in summer. Undoubtedly many kinds of fruit are injured when in blossom by late spring frosts which are scarcely noticeable, and then when the question is raised as to what caused the light crop or the absence of any kind of crop no one is able to answer definitely.

"During a visit to the Hilton orchards in order to photograph them and to publish an account of their fruitfulness in Green's Fruit Grower I was told that only certain sections of the Hilton district would bear superior apples. What is your opinion on this point?" I asked.

Reply: "I should not agree with that opinion. So far as I know land in every direction from Hilton yields fine crops of apples, and the soil on one side is as desirable for apple growing as that on another side."

At this point the editor called attention to the visit at his office of a man from Oklahoma who had been engaged in fruit growing there. He had sold his land in Oklahoma at a very large advance over its cost and had come to Rochester, N. Y., to buy a farm for himself, also one for his son, for the purpose of growing apples. He bought a farm west of this city in the town of West Webster. There would seem to be no doubt that farms in the fruit growing district of western New York are about the cheapest in the world, far cheaper than those of many of the western states.

Plain Language.

Mr. C. A. Green:—In the August number of your valuable paper is an article on "Our Soils" by Prof. J. C. Mc-



This beautiful photograph is a scene on Lake Ontario in winter with the frozen ice looming up like big rocks behind the man standing in the foreground. These big lakes do much to promote fruit growing and to encourage fruit growers by preventing late spring frosts and moderating the temperature of winter.

consider those varieties good enough. I hear no complaint about the quality of the Baldwin. People eat it with avidity and declare that it is a good apple."

"And yet said I, no man who has become familiar with the superior apples I have named, such as Banana, McIntosh and others of that class, would be satisfied with the Baldwin. Greening is one of the best cooking apples in the world but cannot be considered a high class eating apple. I am surprised that apple growers should hold up the Baldwin as a good eating apple when there are so many superior varieties. Certainly there would be no use in planting high class eating apples if the community is satisfied with the Baldwin, for on the average you could not produce so many barrels of Fameuse and McIntosh as you could of Baldwin. I am inclined to think that you could produce almost as many barrels of Banana per acre as of Baldwin. What is your method of cultivation and treatment?"

Reply: "My orchard is located almost in the village of Hilton. The street electric lights light up portions of my orchard. I have a young orchard planted with my own hands. It has borne good and profitable crops each year for the last twelve years, which is considered something remarkable. I give the soil thorough cultivation, I spray the trees at regular intervals, as they seem to have need of spraying, and go over the orchard yearly, looking for occasional branches that need removing, attempting in this manner to avoid severe pruning in any one year. My aim is to have the trees low-headed on account of the ease of picking the fruit and of spraying the trees."

"Do you think it would pay an old man to plant apple trees?"

Reply: "I was not a young man when I planted this orchard of which I have been speaking. I am over sixty years old now but I would not hesitate to plant an orchard at my present age, believing that I stand a chance of living to see such trees bearing fruit."

At this point our editor felt like observing that the Hilton orchard section, being so near Lake Ontario, must be largely

Dowell. He may be writing for well informed farmers and be helpful to them, but he uses so many scientific and technical terms that he is unintelligible to the large majority of our farmers. For instance, calcium carbonate, magnesium calcium carbonate, marl, dolomitic limestone, etc. If the reader is impressed and thinks he wants to buy something he needs he goes to his dealer and finds he knows nothing about the items named. If he consults a dictionary he is more confused than before, and has to give up for want of plain simple terms, explanations, and instruction in what he has been reading. The same thing is true of the learned disquisitions he hears when he attends the address of the average lecturer sent out by the experiment stations. Most of these addresses are discouraging to the larger part of the usual audience.

These thoughts also occurred to me when reading an article in the Literary Digest on "How to Make Available the Inexhaustible Wealth Which Lies Below the Thin Surface of Worn Out Farm Lands," by tapping the hardpan beneath by the use of dynamite. The writer tells of wonderful crops of fruit and corn upon dynamited hardpan land, but he gives no explanation of how it is done, quantity of dynamite, distance apart of holes, depth it is sunk, and how the process could be tried by an average farmer who wanted to experiment. Then I thought of C. A. Green, fruit growing expert, and decided to write to him.—S. A. Craig, Pa.

Note: The above is good. I have endeavored to correct such mistakes of scientific men.

Chip Off the Old Block.

A school teacher recently received the following note from the mother of one of her pupils:

"Dear Mis. You writ me about whipping Sammy. I giv you permission to beat him up any time he wont lern his lesson. He is jest like his father an you hev to beet him with a club to lern him anything. Pound nolege into him. Don't pay no attention to what his father says. I will handle him."

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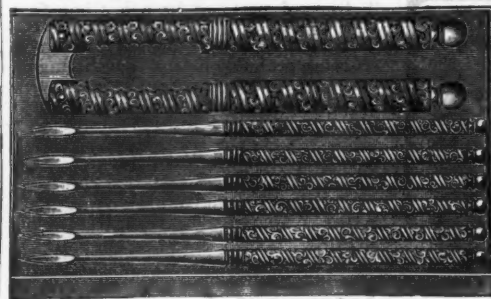
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The pleasure you will have with this camera will be all out of proportion to the small effort required to secure it. It is always a delight to have pictures of the family, of the baby as he grows and begins to toddle about the house or yard, or of the old folks who may not be with us long.

Then too, there are beautiful landscapes, views of the house and orchard, pictures of the stock, the pet horse, that fine flock of chickens or perhaps the new automobile. Best of all there are the jolly picnics, the sleigh-ride parties and the groups of friends who come in for an evening—all of them occasions to be cherished in memory. Time passes quickly and soon these pictures will be treasured as the faithful records of the days that have gone.

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Sent prepaid for only 6 new one year subscriptions to
Green's Fruit Grower at FIFTY CENTS EACH.

Address **GREEN'S FRUIT GROWER CO., Rochester, N. Y.**

Answers to Inquiries.

Trees Planted Too Close Together.

Editor Green's Fruit Grower: Last spring I planted some two year old apple trees and afterward found that I had planted them too close. Would it be a good idea to replant some of them next spring?—J. L., Pa.

Reply: I advise you to allow the trees to stand. After the trees are grown, perhaps 15 years, you can remove every other one if you think it desirable.

Barkbound Trees and Hidebound Cows.

Editor of Green's Fruit Grower:—I saw an article in the Fruit Grower about trees being barkbound. The question was also asked, Will cattle get hidebound?

Reply: Truly they will. Should your milk cow get hidebound the flow of milk will decrease. Treatment: Rub her back briskly with a rough sack or straw twice daily and pull the hide gently by grabbing hold of it on the backbone until the hide is quite loose.—A. Bann, Ohio.

Peach Inquiry.

C. A. Green:—Can you tell me what is the matter with a peach tree that I have and what can be done to save it?

The leaves on one branch after another have shriveled and died and likewise the fruit. The gum oozed out on the trunk and branches of the tree and the leaves had a yellowish appearance. The bark on some of the limbs has a scorched look. This tree is 7 years old.—M. H. Schorn, N. Y.

Reply: I think your peach tree is attacked with peach yellows. If so, I know of no cure. I advise you to dig it up and burn it at once. If you should dig about the roots and find white grubs eating the roots it would indicate that the white grub may be the source of injury. You have to hunt carefully for the white grub in order to discover it as it burrows under the bark of the roots nearest the trunk just below the surface of the ground.

Black Spots on Pear Leaves.

Green's Fruit Grower Co.:—Can anything be done with young pear trees whose leaves are covered with round black spots? Trees that I bought last year did not have them until this year, but one of them is covered so far that I think it will die. The trees that I bought this year do not show the spots but I am afraid they will next year. I hope you will be able to tell me what to do. There is a nice fresh sprout coming up from the root of one of the last year's trees ought I to leave it?—Miss M. E. H., Hammett, Conn.

Reply: If the bark and wood of your pear tree turn dark it indicates that your tree is attacked with pear blight, for which I know no remedy except to cut off all diseased parts of branches one foot below the lowest point attacked. If the wood and bark are healthy, the pear leaves are probably attacked with fungus. It may be too late to spray for fungus this year. As soon as the spots appear next season spray with Bordeaux mixture.

Persian Walnuts.

Green's Fruit Grower:—I noticed an interesting article in your last paper about English Walnuts. I have a tree in my

yard I planted 14 years ago and think it is the finest grown tree I ever saw. I will mail with this letter a few of the nuts and for curiosity would like to hear from you how the size compares with the nuts of A. H. Thompsons? I got first premium at our International Fair here for the last 3 years. 37 weigh one pound and 24 fill a quart measure. Last year yield was three pecks nuts.—Ed. Roethlein, Va.

Reply: The nuts you send are larger than the average hardy Persian walnut grown around Rochester, though some of those grown here are as large as those you send. The shells of your nuts are thin and the meats are plump. I assume from what you say that your tree came from seed and has not been grafted or budded. I have received sample nuts from other localities as far north as Rochester, N. Y., indicating that the Persian walnut, known as the English walnut, can be grown farther north than is generally supposed. Virginia should be a good locality for this walnut. It looks to me as though a new industry would grow up out of this discovery that this valuable nut tree can be made to thrive and produce large crops of nuts farther to the north than before known. Notice that we will send postpaid 4 hardy English walnuts as premium with Green's Fruit Grower, to all who send soon 50 cents for one year or \$1.00 for 3 years' subscription.

Fancy Apples.

I am a beginner in fruit growing but have some good ideas about progressive growing and packing. However I am at a loss on varieties to plant and how to ship to the best advantage.

1. Of the following varieties of apples which are most desirable do you think for fancy trade, meaning fancy packs or boxes: McIntosh, Wealthy, Maiden's Blush, Delicious.
2. What is the best winter apple to plant?
3. Of whom can we demand a good price for boxed fruit? Commission men? Wholesalers? Retailers of a select trade?
4. Do fruit stores in small cities buy their fruit of commission men? If so, can't they be induced to buy direct from the grower?—C. E. Miller, N. Y.

Reply: 1. McIntosh and Delicious would be my choice.

2. Banana would be my choice.

3. Find a regular list of patrons in the nearby towns who appreciate high grade fruit. There are men looking for such fruit every year and cannot find it. Commission men are not inclined to pay enough for such fancy fruit. You should get double the ordinary price for it.

4. Fruit stores buy fancy fruit most often from commission men. They would be glad to buy direct from the grower if they could get fine fruit that way. Remember that different varieties of apples do not do equally well in different localities. For instance, the Jonathan apple which is such a great success in some parts of the country amounts to nothing at Green's Fruit Farm where it is quite small.

The Life of a Grape Vine.

Dear Sir:—Will you kindly inform me by letter at your earliest convenience at what age grape vines bear the greatest; in other words, how old are the average grape vines when they yield the best and how old when the yearly yield begins to lessen? The reason I desire this information is that I am looking at several fruit farms in Ulster Co. with the intention of buying and 2 or 3 have large vineyards with grape vines of various ages from 5 to 20 years. One in which I am particularly interested has 7000 grape vines said to be 20 years old which produced 25,000 baskets of grapes last year. Will you kindly give me your opinion relative to this vineyard.—C. E. Janes, N. Y.

Reply: I do not know of any certain age when it can be said that grape vines have a tendency to bear the largest crops. The crop of grapes will vary in different years for various reasons. Grape vines live to a great age, a hundred years or more if nothing interferes with their health or vitality. At present the vineyards of Chautauqua county near Brocton, N. Y., are said to be attacked with root worms which consume the roots much as potato bugs consume the foliage of potatoes, thus these vineyards are yielding less each year, so I am informed. I saw the vineyards recently and they did not look thrifty as in former years. But you can rest assured that if a vineyard is vigorous and productive, showing no indications of disease or insect attacks, yielding large quantities of fine fruit, the vines are not too old to be valuable. Bear in mind that some varieties of grapes are longer lived than others. The Concord, Worden, Moore's Early, Campbell's Early and Niagara, are all long lived grapes. I would not expect Delaware, Brighton, Agawam, Lindley, or others of that class to be so long lived as those I have named,

but even these will live long enough to pay for themselves a hundred times over in furnishing the food supply for a family. It is in the family garden and climbing over the farmer's houses and other buildings where the grape is most profitable. I estimate the grape vine trailing over the arbor of the house worth \$10.00 each year where it fruits abundantly, where the wife, sons or daughters, can pick clusters daily as they see them dangling before their eyes.

Transplanting Large Trees.

Editor Green's Fruit Grower:—I have a beautiful beech tree in my woods, about 800 feet from my residence. Will it be practical to transplant this tree to my lawn. This tree measures about 9 inches thru the trunk.

Tell me the usual cost of transplanting.—Geo. W. Hull, Ky.

Reply: The chances are that you would not succeed in moving the large beech tree and the expense would be considerable. As a rule it is safer and better in every respect to plant small trees than to plant large ones. I do not think such a tree as you speak of could be dug up and planted at less than \$50 to \$100.

Renewing Peach Orchards.

Editor Green's Fruit Grower:—What would you advise in regard to fertilizing a peach orchard which is eleven years old and shows signs of age? Some of the trees are split or broken and the leaves have a light or yellowish cast. We have a clay loam soil, or perhaps more accurately speaking a volusia soil. Although the trees have been trimmed the peaches are not of the desired size, which cannot be charged to overbearing. Would barnyard manure be proper to use? No commercial fertilizer has ever been used, and would it be best to use it now? If so, what kind?—Horace Spencer, Penn.

Reply: The best thing to do with an old peach orchard such as yours is to dehorn it, cutting off all branches during the winter or early spring, leaving simply stubs of branches three to four feet long. A new top will soon be formed which will be vigorous and productive. Barnyard manure will be helpful to this orchard but may not be absolutely necessary. It can do no harm. You will be surprised to see how your orchard is renewed by this dehorning, provided the trees are healthy and not attacked with yellows or with white grubs in the roots, which should be dug out if present.

Pennsylvania Inquiry.

Green's Fruit Grower:—Although having only a small city lot I raise some fruit and I take an interest in the answers to inquiries in the Fruit Grower. I have been told that if I plant old leather around grape vines I will have lots of grapes. Is this true? I have a Campbell's Early Grape vine which some years bears well and the grapes are of good quality, and other years the grapes are few and bitter. I have used barnyard manure in preparing the ground. Is there any way to save the vines when a late frost comes? Should they be covered and if so, with what?

How many years does a peach tree generally live?

I see in a recent number of the Fruit Grower about using a wooden mallet to hit the trunks of plum trees. Should this be done when the plums form or later and how often? Should there be a long handle to the mallet and how thick? Should the end of the mallet be covered so as not to injure the trees?—C. A. Kase, Pa.

Reply: I do not consider leather valuable as a fertilizer. It might be of benefit as a mulch. I know of no way of protecting vines from autumn frosts except to cover them with cloth.

The average life of a peach tree is not over ten or fifteen years. Plum trees should be jarred to shake off the curculio on sheets soon after the fruit forms and this should be continued for awhile in case the curculio is destructive. We do not find it necessary to do anything at Green's Fruit Farm toward warding off the curculio. Cover the head of the mallet or in some way prevent the mallet from bruising the bark of the tree. I have seen the stub of a branch left on the tree on which the mallet falls.

"Let love enter your life at this Christmas season, bringing with it all the joy and peace, happiness and good will that ever walk with love in its journey through the centuries."

How may we convert the waste products in the orchard into money? These may be utilized by making them into cider or vinegar, they may be evaporated, canned or made into butter. All of these factory products should have a market value. Every fruit growing district should have enough of these factories to consume all the surplus fruits fit for use.

Distance Apart to Set Shade Trees.

Written for Green's Fruit Grower by
J. S. Underwood, Illinois.

Shade trees of beautiful form are very scarce. It is surprising how few can be found in any one of our great city parks, where trees have been planted close together. Nature sometimes gives us magnificent specimens, but they are usually found growing alone in some field or pasture where the axe of the woodman spared them long ago when they were very small. With nothing to shade them, they have grown up fully developed on all sides and have developed a large number of branches heavy with foliage. In a few of the great city parks of the country this has been looked out for and every tree has been given room to do its best. This is seen on the grounds near the capital at Washington, where are to be found some of the most magnificent trees in the country. They are a joy forever. Planting trees close together will give shade, but will not give beautifully formed shade trees. A solid wall of trees along a country road will give shade, but they will not give the landscape effect that is to be obtained by having perfectly formed trees set at intervals of say 80 feet. The landscape effect is worth more money than the solid wall of shade, which at many times is of no benefit, such as on cold days in summer, on rainy days, on windy days and on days when the clouds obscure the sky. But the ornamental trees set at 80 feet apart are ornamental at all times.

stationery bearing the name of the farm and the proprietor. This is business-like and it goes a long way with houses with which the farmer is doing business. A letter with a neatly printed heading, with the name of the farm, impresses one with the idea that the proprietor is fully abreast of the times, is up to date in business matters, and he will receive more consideration and better treatment than if he uses any old scrap of stationery that may come to hand.

The cost of such printing is a mere trifle, too, and it will not cost as much as common blank paper bought in small quantities from the local dealer.

Habit of Saving.

A young man may have many friends, but he will find none so steadfast, so constant, so ready to respond to his wants, so capable of pushing him ahead as a little leather-covered book with the name of a bank on its cover.—Sir Thomas Lipton.

If there is any one thing more than another that successful men strive to impress upon the minds of ambitious beginners as a necessary element of success, it is systematic saving. The views of Sir Thomas Lipton expressed above and those of Marshall Field in the next paragraph are typical of an overwhelming amount of similar testimony and advice from the lips of so-called self made men. The great Chicago merchant said:

If you want to succeed, save. This is true, not so much because of the value of the money which the young man who



Here is an interesting photograph of elm trees. There is nothing to prevent any farmer from having such a beautiful collection of trees on his farm near his house. Why not start out at once to have such a beautiful spot as this for the entertainment of yourself, your children, your wife and your friends.

Moreover, the solid wall of trees frequently kills out the grass under its solid shade and leaves a bare and uninviting aspect below. The ornamental tree lets in enough of the sun to keep the grass alive and the green sward vies with the green of the trees to produce a beautiful effect. A single great tree on a lawn is both useful and ornamental. Its great branches hold the ends of the swing rope and under its generous boughs the family meal may be spread on a carpet of silken grass.

Unfortunately, the American idea of tree setting has been and is to get just as many trees in a certain area as possible. Often the result obtained is the opposite of that desired. In twenty years we find the owners cutting out the too abundant trees and leaving a mutilated arboreal wall that will never be healed of its raggedness. It is far better to so plant that in coming years no such amputation will be necessary.

Naming the Farm.

It has become the rule, and a commendable one, with many enterprising farmers, as well as suburbanites, to give their homes a distinctive name. Somehow, when we see a farm with a name, we think of its owner as a man of more than average taste and enterprise, and it gives him a standing among people that he would not otherwise attain. It indicates pride in his surroundings and with it goes the idea of neatness and care, of a well-kept farm and a neat homestead. It gives the named farm a local standing, too; we get to know it by its name. The Oaks, The Pines, or Ivy Dell are more easily located than Smith, Jones, or Robinson's farm.

A supplement to the naming of the farm will lie in the securing of neatly printed

has accumulated, but because of the infinitely greater value of the system and organization which the practice of saving introduces into his life. This result of the saving habit is not generally nor properly appreciated. I consider it to be almost the greatest element in making for a young man's success. In the first place, it creates determination. This at the start. Then it develops steady purpose; then sustained energy. Soon it produces alert, discriminating intelligence. These all rapidly grow into an ability that enables him to take the money he has accumulated (even though small in amount) and employ it with profit. Better and better returns follow up his industry, ability and judgment add to his capital—now steadily increasing. Soon he is secure—and that comparatively early in life; and each day widens the gulf between him and incompetence and its invariable companion, improvidence. This is the real framework of the structure of success. Each of its supports, it will invariably be found, rests upon a foundation stone of an early dollar saved.

Old electric light fixtures which hold incandescent lamps at an angle can be modernized by the use of a recently invented angle socket which suspends lamps vertically.

A German inventor's potato planter is featured by hollow wheels through which the cut tubers are fed into excavations made by spades attached to the sides of the wheels.

According to two French bacteriologists modern ventilators are dangerous to human health as they distribute disease germs in places where otherwise there would be comparatively few.

Your Grandfather Read It
Your Father Read It
Are YOU Reading It?



Why Grow Two Apples Where One Grew Before If You Have to Feed the Odd Apple to the Hogs?

THE chief end of any business is to make a profit. Attention has been paid to the growing end of the farm business to the neglect of the selling end. The business of the profitable marketing of the crop is one thing that THE COUNTRY GENTLEMAN keeps hammering at week after week. It has gone out after trained business experts and turned their attention to a forty-billion-dollar business that needs looking after on the selling end.

Take, for instance, James H. Collins' story in one of our December issues, telling how the apple grower can develop a fancy trade with good profit. Mr. Collins doesn't merely say it can be done; he tells you how to do it. He writes your advertising literature for you—and it's pulling copy, too. The five cents spent for this one issue may mean the difference between a deficit and a profit.

Tree Crops Are to be the Next Big Thing in Agriculture

"We are just waking up to it," says J. RUSSELL SMITH in an important series of articles on pecan growing.

He understands this subject better than anyone we know. He studied the nut orchards of this country, and some friends of the University of Pennsylvania thought so highly of his work that they sent him on an 18,000-mile trip through Southern Europe and North Africa, where pecans, chestnuts, walnuts, olives, dates and the rest have flourished for centuries. He returned with a new faith in tree crops. He tells in this series of articles how the nut industry must be reestablished in America.

Does Your Orchard Fit Your Farm? Misfit farming can't pay out. The several parts—orchard, crops and livestock—must work together smoothly, oiled by good management. This is the idea in a series of articles, **Old Farms Made New**, actual instances of farms replanned on a systematic basis by the agents of the United States Department of Agriculture. They are not experiments, but have paid out. They were changed from misfits to successes.

Other Features That Will Help You

Progressive Agriculture: Boiled-down items on what the Government is doing for farmers.

Everyman's Garden: The timely methods that will make things grow in any garden, big or little.

Everyday Farm Practice: The things that the stockman, the fruit-grower and the general

farmer need to know at the time they need it.

Commercial Poultry Keeping: The essentials of egg and fowl farming to turn a profit.

The Countrywoman's Questions: Styles of the day, recipes and cooking helps, household shortcuts, care of the children and ideas for social work.

And other things in season

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Send only fifty cents in stamps or coin and we will extend your subscription a whole year from the time you have already paid for, and send you the Christmas holly box with the forty-eight beautiful Christmas and New Years' cards prepaid to your door.

To Others

If you are not a subscriber now send the order just the same. We will enter your new subscription for a whole year and make you a present of the box of beautiful Christmas cards.

Remember that a personal message of good cheer is better than a present of mere commercial value.



These beautiful cards cannot be duplicated and this offer holds good only while the cards last.

Send at once. We are sure that you will be delighted with these beautiful cards.

ADDRESS

Green's Fruit Grower Co.

ROCHESTER, N. Y.

Reviving Old Fruit Trees.

Written for Green's Fruit Grower by J. S. Underwood, Illinois.

It is only necessary to look around during the summer months in settled fruit sections, to ascertain what a vast quantity of gnarled and practically worthless fruit trees there are in existence. Whole orchards may frequently be seen in which many of the trees are badly infested by insect pests or fungus diseases. These, coupled with starved soil, have succeeded in bringing what ought to be valuable trees to premature old age. Unfortunately, during the winter season, the best time for remedying this undesirable state of affairs, the trouble is not nearly so apparent. Too oftentimes a careless owner remembers it only when it is brought vividly home to him during the busy days of summer.

Where trees are actually old and entirely worn out, it is, of course, impossible to improve them to any extent. In the majority of orchards which have been neglected, however, the trees have only reached that age when they ought, with proper treatment, to be bearing crops of high-class fruit.

The winter is the best time of the year to undertake this work. Both roots and branches will need attention, and the latter should be dealt with first. The removal of the dead wood must be the primary work. In cutting out dead branches cut down to live wood, otherwise the wound will not be able to heal properly. If this cannot be done, the branch should be cut as close to the limb or trunk

a number of large holes with a crowbar at intervals of, roughly estimating, 18 inches all over the area occupied by the roots. These holes were kept well filled with strong liquid manure, principally drainings from the stables and farm yard, all the winter. This is a rather crude, but useful, method of disposing of such liquid, and well repays the trouble entailed. Trees, like every other living thing, must be properly fed and cared for if they are expected to remain in a healthy and profitable producing condition.

New to the Farm But Successful.

Green's Fruit Grower—I take the Green's Fruit Grower, and it has been my custom to clip for scrap book all pieces of interest to me from each edition. There were so many good things in the August and September issue had to save them intact. I purchased this forty-acre farm three years ago having about 250 trees, if such they could be called; since purchasing have set about 250 more and some 1000 other things, all from a Rochester nursery, which are doing well. I had to have a summer place for my health and after looking for nearly two years came across this one, and purchased principally on account of good building sight, good markets and other advantages that I thought I foresaw, and which are proving out slowly. The people here gave me the Ha, Ha, and I have heard them remark about a city hawk coming out here to show us how to raise fruit from "dead" trees, for surely they looked about this when I purchased. Well I got books, bulletins and fruit papers, got out my



Hauling manure and spreading it on the snow. Here is a thrifty young Minnesota orchard.

as possible. After all dead wood has been removed, very badly cankered branches should next be attended to. Where the disease has nearly circled a branch, it is useless to try and save it, beyond the point where the disease is present. If possible, without unduly thinning the tree, any badly cankered branches should be cut right out at the base. Small canker wounds should be pared out clean, right down to the living tissue, with a sharp knife, the wound sterilized with a weak solution of carbolic acid—one part of the acid to 100 parts of water—and finally painted with coal tar. This same treatment should also be given to wounds caused by the removal of branches.

It frequently happens that very little if any more thinning is needed. Sometimes it is necessary to remove branches that may be badly crossed or interwoven one with another.

Having given the branches a thorough overhauling, supplement the good work with equally good work on the roots. In many orchards the grass has been allowed to grow over the roots and right up to the trunks of the trees. Although this is detrimental to them in all stages of their growth, its bad effects are perhaps not so manifest when the trees are well past their youth. Their starved appearance and small, badly shaped fruit are usually attributed to other causes rather than the ill-effects of the grass growing immediately over the roots. The turf should be skimmed off several inches and the surface of the soil beneath very gently forked over to a depth of a few inches. Even where grass is not present this light working over is beneficial.

After the surface has been broken up in this way as far from the trunk of the tree as the branches extend, a dressing of partially decayed manure, several inches thick, should be spread over the whole. Anything of manurial value, if applied during the winter months in a moderately thin coating, is almost certain to do good. Clearings from ponds and ditches, particularly on rather light soils, have given excellent results.

Another method of manuring old trees which has answered very well, is to make

pipe, put my feet up high, and backed up into the corner to learn my lesson, and I thank The Green's Fruit Grower for its goodly share. Everything had been stripped off the place for ten years before I purchased. It was so run down that it had been let for pasture for last few years, beside this the Brown-tail, gipsy-moth and tent caterpillars had eaten the foliage badly for many years as nothing had been done to prevent. At the time I purchased there was hardly a leaf on the trees; this was in June. Well, the first summer we did nothing but cut out dead wood; in fall scraped the trees of old bark, the following early spring I sprayed for scale, making my own preparation, having put up a little plant for the purpose; the second season cut out all cross limbs, and thinned branches, was among trees all summer, no fruit. Third season, 1913, sprayed in early spring was blessed, with handsome bloom on more than half of trees, sprayed as blossoms were falling, again in July, result the City Hawk has apples. Some of the trees loaded with handsome fruit while with a few exceptions am about all that has any in this section. All now bow low.

I find my position when backed up into the corner with my face between the covers of a book, my eyes open when around the orchard etc., has put me into position where I can give points to my neighbors who have been in the same line all their life, simply because they have not put the study and work into it, and I want to emphasize the words study and work that are required to put a proposition of this kind through as I, as well as a lot of others have done before me.

It is wicked to see the orchards dying all around me, they lack the two words, Study and Work; one orchard in sight that had over a thousand barrels of apples two years ago is now practically dead. This shows that the fellow that forever keeps these two words in mind, Study and Work, and carries them out faithfully will succeed. I know you will be interested to hear from me, as poor health prompted me to take up this work, as it did in your case. Success has been yours, also Study and Work did it.—F. W. R. Bradford, Mass.



"Hun- wealth. with the street, e ages are but hum of these recently luxuries friendsh Charles mas Car soil un He was bent on duty to him his was rich anyone, friends. waste. his hear result w brighten turkey, Tim, only thi warmed before si lease of l Some o for it is y the time the cry Friendsh be alone wealth a lack of fr Friend than in re sincerity. ing eithe worthy o eous. B Recall in of her ey took you your bab your grow years. B so solicit a youth v success he of his fat The youth in careerat friendly to in sympat struggles to your wi Make frie them you their game there sho family lov love, a f mankind. Begin to friends wh easily cha sprouts do

My Editor C that you a ing article nature, an been remin the old far father sett first impro after gettin he set out which was member see trees thirty midway bet peach trees and were b them. I r twenty fan desire to se like most f that time, scrupulous perhaps it m my estim varieties. f by some of nificent. S assorted app Then there and such ap from those t to me. On limbs growi seat where began eatin were fit to e ever getting the other Winesap, V Further, Fa Sweet, Fall Russet, Che Smith's Cid Queen, Swee



Thoughts on Christmas.

By Charles A. Green.

"Human friendship is better than wealth. Many people start out in life with the idea that a home on a fashionable street, elegant furniture, dress and equipages are the great things to be sought for, but human friendship exceeds in value all of these," said Robert E. Brown, D. D., recently. We can enjoy life without luxuries, but we cannot enjoy it without friendship.

Charles Dickens tells us in "A Christmas Carol" how Old Scrooge dwarfed his soul until it shriveled into nothingness. He was so narrow minded and stingy, so bent on saving, he was unconscious of his duty to others until a dream revealed to him his poverty, though in one sense he was rich. He had no friendly feeling for anyone, and in consequence had no friends. Life to him was a barren desert waste. After his awakening he opened his heart to poor Bob Cratchit. The result was that the home of poverty was brightened by the presence of the big fat turkey, which led to the prayer of Tiny Tim, "God bless us every one." Not only this, for the heart of Scrooge was warmed as it had never been warmed before since childhood and began a new lease of life.

Some one has said "Save your money for it is your best friend first, last and all the time." Search for great position is the cry of many, but I say, Not so, Friendship is a greater thing. We might be alone on the earth and own all of its wealth and yet be miserable through the lack of friendship.

Friends take pleasure in giving more than in receiving. Friendship is based on sincerity. Without sincerity we are nothing either to ourselves or others. Be worthy of friendship, be true and generous. Be a friend of your mother. Recall in imagination the fond gleaming of her eyes when for the first time she took you in her arms and looked into your baby face, and when she watched your growth through your developing years. Be a friend to your father who is so solicitous for your welfare. I recall a youth who was so bent upon financial success he declined to come to the relief of his father in his distress late in life. The youth succeeded but the penalty was incarceration in a lunatic asylum. Be friendly to your brothers and sisters. Be in sympathy with them in their trials and struggles in life. Husbands be friendly to your wives and wives to your husbands. Make friends with your children, make them your companions, and enter into their games, their joys and sorrows. But there should be something more than family love. There should be unselfish love, a feeling of brotherhood toward mankind.

Begin to form the habit of making friends while you are young. We cannot easily change when we are old. New sprouts do not readily grow on old trees.

My Father's Fruit Farm.

Editor Green's Fruit Grower:—I see that you are fond of writing and publishing articles of a somewhat historical nature, and in reading the articles I have been reminded of my own experience on the old farm which is still my home. My father settled here in 1844 making the first improvement in the woods. Soon after getting a few acres under cultivation he set out an orchard of about an acre, which was in its prime when I first remember seeing it. He set standard apple trees thirty feet apart and set peach trees midway between the apple trees, but the peach trees had mostly served their time and were being removed when I first saw them. I remember there were about twenty Rambo apple trees; he did not desire to set so many of that variety but like most farmers in setting orchards at that time, he was imposed upon by unscrupulous nurseries. But in this respect perhaps it was not so bad, as the Rambo in my estimation is one of the leading varieties. Such apples as were produced by some of those trees were simply magnificent. Sometimes twenty bushels of assorted apples were taken from one tree. Then there were five Pound Sweet trees, and such apples as I used to help gather from those trees is a very pleasant memory to me. One of the trees had three large limbs growing in the form of a natural seat where I spent many an hour and began eating the apples long before they were fit to eat, but I do not remember of ever getting sick from eating them. Of the other varieties remembered were: Winesap, Vandevere Pippin, Seek-no-Further, Fall Pippin, Bellflower, Weaver Sweet, Fallwater, Sheepnose, Golden Russet, Cheesboro Russet, Oats Apple, Smith's Cider, Harvest Apple, Summer Queen, Sweet Rambo and several other

kinds, the names of which I never learned. These trees are now all gone except a Fall Pippin, a Bellflower, a Fallwater, a Smith's Cider and three trees the names of which I have never yet learned. Then there was a Siberian crab apple tree that always bore loads of fruit and a large pear tree the fruit of which I have never seen equaled since. These remaining trees are still bearing and this year have apples some of which are really fine.

There was not much market for the product of this orchard except such as was sold to some of the neighbors who were not settled in the new country long enough to have bearing orchards. But soon the conditions were different, everybody had apples and as they were so plentiful and many bushels rotted in the orchards, the trees were neglected, and the time came by and by when there were hardly apples enough grown in the old orchard for family use.

When I became the owner of the old place in 1892, I set some trees in a new location, to which I have been adding a few trees occasionally, and now have plenty of apples again.

About 1868, my father in partnership with another farmer, purchased a hand cider press of Thomas & Nast of Springfield, Ohio, and for a number of years we made much cider and apple butter. He also bought a twenty gallon copper kettle in Fort Wayne for \$17.00. The cider mill has long since ceased to exist but I still have the copper kettle.—R. H. Maring, Ind.

FRUIT FOR THE SALVATION ARMY.

Are There Two Sides to This Question?

Green's Fruit Grower:—In the September number of the Fruit Grower I find it says: "It can be safely stated that at least \$50,000,000 worth of fruits alone goes to waste in the United States, and perhaps twice that amount, in one year."

Is there not in nearly all communities a representative of the Salvation Army? Then why this awful waste and the poor people deprived of this fruit which their heavenly Father has entrusted to the care of a few people. Have they forgotten that they will have to give an account how they used this trust, why God's poor people did not get it, why they thought God intended all of this fruit for them and what they could not use themselves throw away? The Salvation Army representative will be more than pleased to help all of these people to a much better business method and a better understanding of God's law and wishes for all of his people.—Mrs. T. J. Walker, Conn.

Editor's Note: Yes, there are two sides to this question suggested by the above writer, therefore I will ask, Is she correct, is she just in asking that the farmer or fruit grower shall leave his proper work, which as a rule he has in plenty, and go out into his orchard with his men and gather there the windfall fruit, load it into wagons, hitch on his horses, and with his hired man, whom he is paying big wages, depart for the distant city with this load of fruit with the noble intention of giving it free of charge to the Salvation Army, or to any other army or church or people whatsoever?

My answer is, No. There is no religious creed or law which would require a man to do as I have indicated other than in exceptional instances. If these men who have fruit going to waste on their farms had time to gather it and take it to market undoubtedly they would do so and sell it at a low price, but in most instances they are so pressed for time they conclude that the small price they would receive would not pay for the expense of taking it to market. It is the privilege of the people that the Salvation Army helps to sustain, support and lead to a higher life, to live in the country where fruit is plentiful, and perhaps to own a little farm of their own. There are few people in this country who could not if they would, that is if they would strongly enough, own a home in the country. I know this is making a large claim and a bold statement, but I am impressed with the fact that it is true. Most people who live in cities have no desire to live on the farm where they can have an abundance of fruit at scarcely any perceptible cost. They adopt city life, from choice and having done so cannot expect if they are poor to enjoy all the blessings of the country.

I admire the sentiment of Mrs. Walker's thoughtful letter but cannot help thinking she is a little severe on those farmers and fruit growers, whose names are legion, who allow fruit blown down by the winds to decay in their orchards. There are few farmers who do not feel the pinch caused by the scarcity of farm laborers, thus farmers and fruit growers are driven from pillar to post from early spring till winter sets in, planting time being followed by haying, then the harvest, and later the apple gathering, the corn husking and the preparations for winter.

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The Orchard a Boon to Old Age.

Written for Green's Fruit Grower by John E. Taylor.

Most assets of a farm are considered for their present benefit and not for their future good. The orchard, however, is one of the things on a farm that not only serves to bring money to the pocket-book for the present but is a boon in the old age of farmers. It has been said by farmers who have had orchards that an orchard is a bank account and no man that ever owned an orchard ever discredits its benefits.

L. G. Stevens of Somerset County, Maine is one of the farmers who declares that an orchard though poor is one of the most important parts of a farm. He is ready to say that apples from an orchard selling at one dollar per barrel bring good profit. Though the yield may be small the orchard pays but Mr. Stevens also declares that like anything else, though it may be paying, it pays best with attention.

Mr. Stevens has an orchard of 1800 trees. Some of them are just coming into bearing and others are 30 years old. He believes that an orchard should be cultivated every year from the time that it is set out until it stops bearing at the end of its lifetime. His slogan is that one tree cultivated around it is better than a dozen trees without cultivation. He believes that profit enough is derived from cultivation of an orchard to pay for all the labor expended. He even goes so far as to say that grass should be kept entirely clear from the trees.

He raises in his orchard the Ben Davis apple, Baldwin, Farmer's Reward and the

modern methods of marketing and distribution; they receive for themselves, it has been calculated, less than half what the public pays for the produce they raise; their political influence is strikingly disproportionate to their numbers and their economic importance."

A Young Orchard on 100 Feet of Ground.

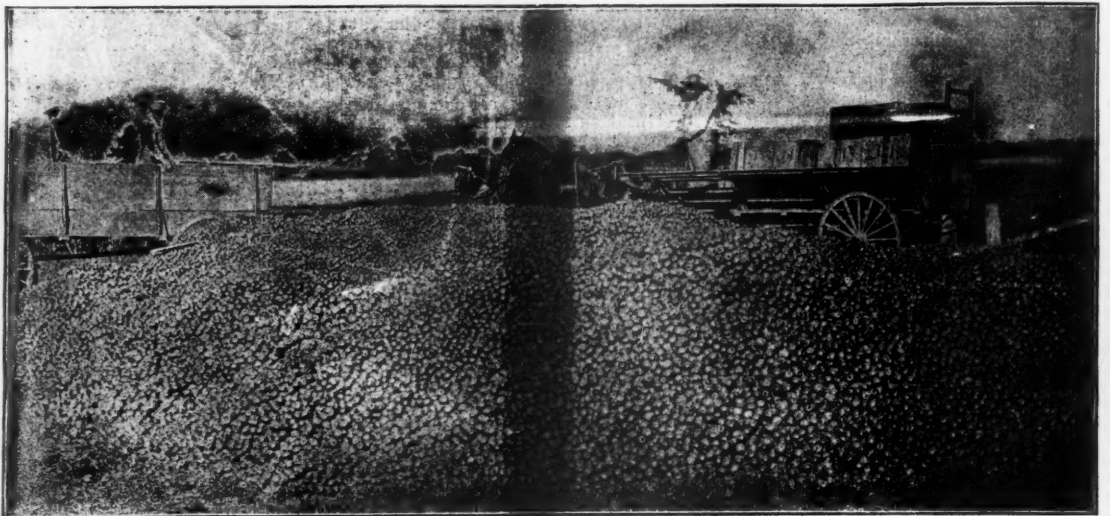
Every country home should be supplied with fruit from the home orchard, says T. B. Symons, Dean, School of Horticulture. It is to be regretted that even many farmers have got out of the habit of keeping a good garden and raising enough fruit to supply the home the year round. The purchasing of such articles of food, which should be raised in abundance at home, is adding to this cost of high living, as some put it; but the suburbanite has gone to the country to live in nature's best, and he should aim to grow as much fruit and vegetables as possible. Of course, I realize in many places it is difficult to secure labor, especially as the head of the home trots off to the city every day. It is difficult for him to direct what he desires done in the garden. He can better tend the garden himself at spare moments in morning and evening, and really that is one of the joys of living in the suburbs—to get in real touch with Mother Earth.

What pleasure it is for the city man to put on overalls and dig his garden! Why, the corn that comes out of the suburbanite's garden is the best that was ever grown. The tomatoes are simply out of sight; the beets are sweet and everything is the best!

above, but such yields are possible under favorable conditions. I have no fear that there will ever be a glut of first-class apples and, while there has been immense plantings in the East during recent years, there is room for more good apples. It is one of the finest fruits to eat the year round. There is always an opportunity to sell a first-class product. Our Eastern markets should not handle a single Western apple. We should be able to supply our own markets with Eastern fruit. So the suburbanite should plan to plant at least enough apple trees this fall or next spring to supply his family and some to supply the families of his friends in the city. The suburbanite will of necessity adopt intensive culture, and not only should he raise apples, but peaches and many small fruits, such as blackberries, raspberries, gooseberries, grapes, strawberries and others can be raised in sufficient quantities on a small place to supply the home during their season.

Finally, don't think from this article that it is only necessary to stick a tree in the ground and expect to pull fruit from it in a few years. Trees must be given attention as other crops to secure results. Care must be taken in selecting varieties, planting and other details. The location of the trees as regards air drainage, as well as surface drainage, is important.

"Americans have much to learn from us in the matter of provident, scientific, and intensive farming; but, apart from that, we are not very much more advanced than they are in the organization of agriculture as a business or in our political recognition of rural interests. It is in Ireland that the visiting Commissioners will find



Here is a pile consisting of 3000 bushels of apples. No one would pile up first class apples in this way. These are second class apples intended for evaporation at Medina, N. Y.

earlier varieties. He believes that the Baldwins are best adapted to New England conditions. They are hardier and are better for shipping purposes. He finds that the Baldwin though it does not come into bearing as soon as some other varieties, yet it will bear in bigger quantities when it does come into bearing.

Mr. Stevens owns a large farm and does general farming besides caring for his orchard. He declares that there is a good deal of satisfaction in knowing that every fall though the crops of annual rotation may fail there is the orchard; though it may have a small yield yet it will furnish an income. He stated a short time ago that the hired man's pay could be assured if a man owned an orchard; that the farmer can be sure of some ready money each fall.

Mr. Stevens has found that there is always a good market for apples. He sells a great many of his in Liverpool. He sells them without solicitation and the money is immediately forthcoming.

Of a need for improvement and reform in American agricultural methods, says London Times.

"In spite of a lavish expenditure by the States on agricultural colleges, of exceptional advantages in the way of soil, climate, and market facilities, and of a steady inrush of the best European peasants, the American farmer remains all but the worst in the world. He has settled on the land like the locusts, exhausted it, and moved on; and altho the products of the farm supply not far short of half the materials used by American manufacturers, and account for some 70 per cent. of the country's exports, the time is not far distant when the United States will be hard prest to feed its own people. Agriculture, the only indispensable industry, is also the only industry in America that, taken as a whole, is still unorganized. The American farmers as a class—there are some exceptions, particularly in Wisconsin and among the fruit-growers on the Pacific slope—have not yet mastered even the elements of

Apples can be raised much easier than vegetables. So, Mr. Suburbanite, I care not how lazy you may be or how tired you are when you come home from your city labor, you can generally arrange to plant the trees along the edges of your place, and, in fact, use them for shade in many places, and with just a little attention produce splendid fruit that when properly cared for will keep your family supplied the year around.

As a commercial proposition think of this. It is not an unusual occurrence to see an 8-year-old apple tree produce two barrels of apples. The suburbanite should be able to sell his extra fruit direct to the consumer in the city and thus secure a good price. At \$3 a barrel his trees would give \$6. He can place about 30 trees of standard varieties on an acre. Moreover, in planting apples it is best to plant standards—that is, winter apples, such as Stayman Winesap, Winesap, Nero, Rome, York and others, placing these 40 feet apart and plant fillers of summer varieties, such as Yellow Transparent, Early Ripe, Williams' Early Red and others. The summer apples will bear earlier than the standards. In four or five years you should receive a few apples from some of the trees. You would thus have summer and winter apples with trees standing 20 feet apart. There is just as much money in summer apples as there is in winter apples when properly handled.

To make a success in raising apples, the grower must first love trees and love to work with them. He must learn something about treating them to prevent injury from San Jose scale, borers, codling moth, blight and other insects and diseases. These pests are easily controlled by the application of proper remedies. It is not possible to go into this matter in this article, but parties interested can secure this information free by writing to the Maryland Agricultural College.

Apple trees grow in most any kind of soil and when fed and cared for will yield good returns. It is not, of course, always possible to secure the yields mentioned

such enlightenment as the British Isles are capable of furnishing on the subjects of their inquiry. With the principles and practices of co-operation they will already have familiarized themselves at first hand during their Continental tour. But in Ireland they will see what can nowhere else be seen—an English-speaking community applying these principles and practices to their own conditions and in many ways improving on them. They will also see in the Irish Department of Agriculture and its activities and constitution an official institution laboring with the people as well as for them, keeping in touch with the needs of each district without losing its centralized efficiency, and bringing State aid to agriculture in such a way as to evoke and supplement, but not to supplant, self-help and individual initiative."

Blind Man as Farmer.

There is a blind man who is a successful farmer. His name is Rufus I. Warren and his home is near South Bridgeton. He has been blind for 30 years, and during that time has successfully operated a farm of about 75 acres. He keeps a dairy of 10 to 12 cows, some young stock, and hires all of the usual cropping work of the farm. Mr. Warren's part of the farm work is to care for the live stock and the building. He feeds and otherwise cares for the live stock without any assistance whatever. He milks the cows and climbs into the hay mow and throws down roughage. He also cares for a flock of Rhode Island Reds, which produce eggs in abundance.

Mr. Warren lost his eyesight when he was a young man. He helped his father build the barn on his farm and has made many improvements which are designed to assist him in doing his work conveniently and easily. Recently Mr. Warren installed a system of running water from a spring into the house and barn. The house overflow is the barn supply. From a barrel in his barn the water runs into a trough 42 feet long placed in front of the cows. The trough is made of pine logs.

RURAL LIFE NOTES.

Soil Fertility in Germany.

Fertilizers are used in Germany in growing measure and to a far greater extent than in the United States, writes Consul General Thackara of Berlin. There are, indeed, few countries in which the per acre expenditure for fertilizers is as high as in Germany.

In earlier times very stringent clauses were regularly inserted in leases with a view to the preservation of the fertility of the land. They dealt with the rotation of crops and other methods of cultivation, including manuring, and usually contained an absolute prohibition of the sale of straw, hay, natural manure, etc. It is the present custom, brought about by the introduction of artificial fertilizers and a better scientific appreciation of agricultural methods, to leave all such stipulations out of leases as far as possible and to prescribe merely that when hay, straw, natural manures, etc., are sold, artificial manure in corresponding quantity shall be purchased and added to the ground.

Some restriction is, however, usually placed on the sale of hay and straw during the last two years of the term of the lease, and it is provided that, as the lease draws to a close, insurance indemnity received for the loss of straw by fire shall go to the lessor or to the subsequent lessee.

It is not the custom to assign a certain degree of fertility to the land when the lessee enters into possession and to liquidate in money any amelioration or deterioration which is found to have occurred at the termination of the lease. The lessor is protected against his land being abused by a right which he enjoys at any time to look into the management of the farm and to examine to a greater or less extent the farmer's accounts.

In 1907, 86 per cent. of the agricultural land of Germany was being worked by its owners and 13 per cent. by lessees. The former amounted to 91,681,020 acres; the latter to 13,621,280.

WESTERN FARMERS COMING EAST.

Many Western farmers are buying farms in New York state and locating on them. These farmers with few exceptions are good business men, having the money to pay for their farms and equipment, and possessing an abundance of self confidence, push and energy. Those who have in addition to these qualifications the ability to adapt their plans and methods to Eastern conditions are successful; those who "know it all" and will not learn are doomed to disappointment and failure.

There are opportunities in this state for hundreds of good Western farmers to develop profitable farms and pleasant homes. They will find a hearty welcome, and a number of advantages which new countries can not give them.

THE NATION'S WASTE.

It has been said, and truthfully, that no matter how many head of stock the farmer keeps on his farm, or what he may grow on his acres, if he does not buy manure, fertilizer or feedstuffs grown on somebody else's acres, he will reduce the fertility of his soil. For every egg that is sold, for every pound of pork that goes to the market, and for every quart of milk or pound of butter that the cows produce from the crops, a return to the land must be made. The farmer cannot make this return unless he buys either manure, fertilizer or feedstuffs. While one farmer improves his land and increases the fertility of the soil, some acres, owned by some one somewhere who raised the feed, are suffering for it in reduced fertility.

We must take a lesson from Europe, where nothing goes to waste. The city sewage is one of the largest and best sources of nitrogen and the fertile fields adjoining the great cities on the European continent, where it is the leading source of soil-enriching, prove that it makes good crops. The 700,000,000 gallons of sewage which New York forces into the ocean are a direct waste to the farmers of New York and New Jersey. If we figure the loss of this one city alone at the commercial rate demanded for nitrogen, we find that it amounts to \$200,000 every day or \$72,000,000 every year. This cannot go on forever. Some day some one will devise ways and means to turn this rich fertilizer into the garden districts and fields adjoining New York, whose owners, when they once have learned its great value, will gladly pay for it the equivalent in money.

FOOLS HIMSELF, NOT OTHERS.

The breeder who thinks himself intelligent and business-like, but whose barns and stables are inconvenient, disorderly, and unclean, and whose cattle are ill-kept and uncomfortable, is fooling himself, but not others, says the "Hollstein-Friesian Register."

A breeder expresses himself in his stock as definitely as do other workers in the output of hand or brain. It is neither intelligent nor business-like to have uncleanly or inconvenient conditions anywhere; nor for a man to maintain a stable-

ful of uncomfortable, unclean and unhealthy animals, however well-bred they may be. No business or work of any kind can properly be said to be successful that has not produced, somewhere among its results, increased happiness and comfort for mankind."

EASTERN OPPORTUNITIES.

Down in Eastern Maine are hundreds of thousands of acres of land that for many years has produced nothing of marketable value except huckleberries. This land is comparatively level and has been found to be very productive. Last year twenty acres of wild land broken for the first time produced 5000 bushels of potatoes or 250 bushels to the acre. Grain crops and all vegetables suitable for northern conditions flourished on the virgin soil of the huckleberry "barrens."

This land would have made profitable farms for several thousand American farmers, but they overlooked the opportunities in the East for the uncertainties and hardships of the West. Now it is being bought up by the railroads, and is to be divided into farms and sold to Swedes and Poles, at a low price. The best farm land can be bought in that part of Maine for \$15 an acre.

The Hudson River.

New York City is indeed fortunate in having such a river as the Hudson at its very gates. Within a few hours' sail from its very mouth is some of the grandest river scenery in the world—scenery which compares favorably, if it does not surpass, the castle-crowned heights of the Rhine. For miles and miles in the Highland region, the river flows through a mountainous country where the hills rise directly from the water's edge and ascend to noble and majestic heights. The banks and surrounding mountains are clothed in full forest, and every turn of the river reveals a new picture which seems more superb than the last. Here, in the twentieth century, you can gaze on the identical scenes which greeted the eyes of Hendrick Hudson and but little of their original, majestic beauty will be missing.

Too Many Laws.

Over-legislation is responsible for a very large proportion of the evils from which we are suffering today, but our reformers, instead of taking the lesson to heart and advocating the repeal of mischievous statutes, busy themselves in demanding that new laws be passed, which are destined, if the reformers succeed, to add to the mischief. All of this eugenic legislation is "bunk." And so is most other legislation, for that matter.

Inspiration.

From Opportunity.

Without inspiration the best powers of the mind are dormant. There is a tinder in us which needs to be quickened with sparks.—Herder.

Trifles make perfection, but perfection is no trifle.

Hope is a good anchor, but it needs something to grip.—Pro.

I have always been a quarter of an hour before my time, and it has made a man of me.—Nelson.

It has been well said that our anxiety does not empty to-morrow of its sorrows, but only empties to-day of its strength.—Spurgeon.

Perseverance, self-reliance, energetic effort, are doubly strengthened when you rise from a failure to battle again.—Anon.

Difficulties may surround our path, but if the difficulties be not in ourselves, they may generally be overcome.—Jowett.

As a field, however fertile, can yield no fruit without culture, so neither can the mind of man without education.—Sen.

Do not lose the present in vain perplexities about the future. If fortune frowns to-day, she may smile to-morrow.—Sir T. Martin.

If you resolve to do right, you will soon do wisely; but resolve only to do wisely, and you will never do right.—Ruskin.

The field is open to talent and merit is sure of its reward. The gifts with which industry are crowned are her own.—Claud.

Energy will do anything that can be done in this world; no talents, no circumstances, no opportunities will make a two-legged animal a man without it.—Goethe.

What an inaccessible stronghold that man possesses who is always in earnest with himself and the things around him.—Goethe.

Timber Cut in August Lasts Long.

Editor of Green's Fruit Grower:—I read an interesting article in the Fruit Grower about soaking posts in crude oil to make them last, stating that cedar posts would last fifteen years. On my old farm are a lot of chestnut posts that have been in 35 years and look good for 20 years more. I know this for I helped cut and split them. They were cut in August. The great secret for making timber last is to cut the trees in August. Work it up the next winter if you wish. Basswood for dump boards will last four or five times as long if trees are cut in August than if cut in winter.—M. A. Barber, N. Y.

What is Success?

The following answer to the question: "What is success?" received a prize of \$250:

"He has achieved success who has lived well, laughed often and loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem or a rescued soul; who has never lacked appreciation of earth's beauty or failed to express it; who has always looked for the best in others and given the best he had; whose life was an inspiration; whose memory was a benediction."—Exchange.

In all trees you raise, have some regard to the stock, as well as the graft or bud; for the first will have a share in giving taste and season to the fruits it produces, how little soever it is usually observed by our gardeners.—Sir William Temple.

Dry-Farming.

Dry-farming, so called, is said by farm scientists to be merely better farming. It was once supposed to apply only to those districts which get less than 20 inches of rainfall annually. In recent years it has been demonstrated that its principles are as vital in regions of frequent or occasional drought, no matter what the rainfall, as in districts which are known as semi-arid. Dry-farming, as now known, is merely a system of soil tillage whereby farmers may reduce evaporation and may establish a storage reservoir in the soil which will hold the rainfall until they are ready to use it.

A remarkable illustration of this was given at the Government experiment farm in Lichtenburg, South Africa, in 1912, where 17 bushels of wheat per acre were grown under a registered rainfall of one-half an inch between planting time and harvest.

Dry-farming is today attracting the

attention of the entire world. Sixty per cent. of the earth's agricultural surface gets less than 20 inches of rainfall annually, and it is generally considered that any system of soil cultivation which will permit the growth of good crops under such conditions demands the attention of every agricultural country. It is because of this fact that delegates from thirty or more nations, covering every continent on the globe, will meet in Tulsa, Okla., from October 22 to November 1 to study the proposed methods for the conquest of drought throughout the world.

Would Dwarf Trees.

A novel proposition to increase the orchard yield of the country by dwarfing all fruit trees and plants was advocated by Prof. C. P. Close, a pomologist of the Department of Agriculture in a lecture on "The Home Fruit Garden." Prof. Close's lecture was one of others delivered by experts of the department, designed to help the city man reduce the cost of living by teaching him how to grow fruit, vegetables and flowers in his own back yard.

"I grow fifty varieties of fruits on less than a quarter of an acre of land at my own home," said Prof. Close, "and any other man can do the same. The secret is in dwarfing all trees by pruning or pinching off the top buds till they do not exceed a height of two feet above the ground. In this way the full strength of the tree or plant is given entirely to fruiting."

No Meat to Eat 100 Years From Now.

"The twenty-first century American will be an anaemic creature, nourished by rice and vegetables, slothful, and as lacking in initiative as a lower caste Chinaman. This is the transformation that will be wrought when the present supply of rich, red beef is completely exhausted. Porterhouse steak will be sold at \$1 per pound within the next ten years unless the farmers of the United States are educated at once to the necessity of raising more cattle," said Bischoff, "and if that era ever sets in there will be quickly noted a national decline. Much of the virile force of the American people is derived from rich, red juicy beef."

Farm Value of Lime.

Lime is used for many purposes on the farm. It is the cheapest of all disinfectants and is very useful when applied as whitewash for the disinfection and sweetening of cellars, privies, barns, stables, poultry houses and other buildings. Unless it can be kept from the air, lime-wash should be made up fresh before using. Air-slaked lime is of no value as a disinfectant.

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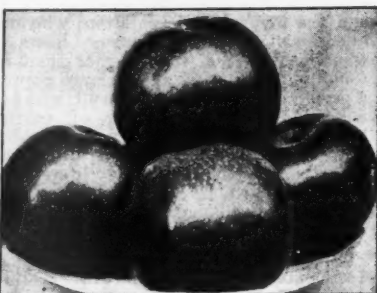
History of this Great Apple, First to Appear in Green's Fruit Grower.

The original tree still stands in Rhode Island in the town of Foster and is over 160 years old.

The farm of Thomas R. Drowne within the limits of the town of Foster, R. I., not far from the Connecticut state line, is the home of the original Rhode Island Greening apple tree. This tree possesses considerable historical interest and is a mecca for travelers from all over the Providence plantations. Not many days ago the Rhode Island Horticultural Society chartered a couple of cars on purpose to go out to Foster to visit the old tree. It stands in the rear of the Drowne residence enclosed by a wire netting and propped up with several rails and poles. The trunk is seared and gnarled and looks devoid of life, but bright green branches crop out at the top each season and bear a few apples to indicate that the struggle for existence is not yet abandoned. Mr. Drowne's report on the crop is summarized by him as follows: "The tree has borne this year some thirty or forty apples, a dozen or more of them as fine specimens as I ever saw, large and perfect as fruit from a young tree."

It is a wonder that the famous Greenings should have been developed from Mt. Hygeia, for that is the local name of the hill in Foster. About 160 years ago, perhaps earlier than that, the tree in question appeared on the hillside as a sapling. Now it measures more than ten feet in circumference at the base. Dr. Solomon Drowne purchased the farm in 1801 and erected what was and is the third house to occupy the site near the old apple tree. He purchased the farm from Henry Jones and learned the history of the tree and passed it down to his family. Mr. Jones at that time called attention to the old tree, dying from extreme age, as the most valuable tree on the place. Dr. Drowne, prompted by the remark and his desire to perpetuate so fine a fruit, had the soil, which seemed rather poor, removed from the tree for some eight feet in a circle and new rich earth supplied. Then the doctor pruned it of all dead

branches and in a few years had the satisfaction of seeing a flourishing tree yielding a bountiful harvest of Greenings. That was more than a hundred years ago, and his children, grandchildren and great grandchildren have seen the tree and tasted its fruit. Thomas R. Drowne, the present owner, when a boy found there was a big hollow limb in the old tree large enough for him to crawl into. Scions from the tree have scattered all over the New England and Middle Atlantic States. The apple now sold as a Greening is not what it once was. The taste is a long way from the original. The apple from



Rhode Island Greening.

the old tree in Foster is a sound large apple with a tendency to bluish as it ripens.

Dr. Solomon Drowne came from Pennsylvania to Rhode Island in 1801. Theodore Foster then retired from Congressional life and took up his residence in the town honored by his name. Hygeia farm comprises 200 acres and is situated on one of the highest points in the state. In the days before the war the old mansion harbored a fugitive slave. Dr. Drowne's determination to preserve the old apple tree resulted in giving it two centuries of life. Today there is not a tree more famous. The supply of apples varies. In 1895 the crop was two bushels, in 1899

one-half bushel, this year thirty or forty apples.

Note to Editor: Mr. Green: I found the above history of the Rhode Island Greening with a Miss Fanny Green, who is 91 years old and as bright and lively as a girl. She tells me her great grandfather, Ahaziah Green, (her father was James Green) was the man who took the seeds that this apple came from to Foster and planted them. This tree was the original Rhode Island Greening. She is eager to find some one of the Greens that are related to her. I am writing to different branches of the Greens to see if I can get any clue to her family for her. They came from the central part of New York State. My name was Green also, but another branch. I have long been a subscriber to your magazine and am very much interested in fruit growing.—Mrs. J. A. Carpenter, Conn.

THE FARMER'S GUIDE FRUIT NOTES

PRICE OF APPLE TREES.
The price of anything is determined by the supply and demand. At the south pole the discoverers found ice in abundance, but there was no demand. It had no value. The average southern Hoosier is not an apple man. He would not give any more for land with a good orchard on it than he would if there were no orchard, or probably not so much. He is like the woman that bought Mrs. Harrison's honey in neat sections. She had no use for the lumber. So she squashed the honey out. The average southern Indiana man don't want his ground encumbered with apple trees. But there are a few that do. Buyers are coming in and good orchards and even good orchard sites have an orchard value. This value is sure to increase. Good five-year old trees, I should think would add \$40 to \$50 per acre to the value of the land. It would be easy to sell our land for three times its value before the orchards were on it.

WORMY APPLES.

Why are our apples so wormy? Well, yes, we would like to know. It is very trying to suffer such a loss and be no wiser. We sprayed abundantly. Our last spraying in July still covers many of the apples profusely. The worms have gone in right through this spray. This suggests that the poison was not good. We can hardly entertain this idea because it was bought from one of the oldest and most widely known firms in the country. We furnished arsenate of lead to many other parties. Some of them have wormy apples some not. In the experimental orchard we used a different brand. The apples there are not much wormy. Our paste arsenate was emulsified by compressed air. We cannot see how this could in any way affect its poisonous qualities. When we tried to spray lime-sulphur with carbonic acid gas, the gas decomposed the lime sulphur. But what could compressed air do to arsenate of lead? Sometimes we try to explain the matter by saying that apples being so abundant last year many moths were grown. The winter being so mild these wintered over, so that we had an unusual number to fight.—Joe A. Burton.

The Farm Orchard.

While it is unlikely that commercial apple orchards will ever be extensively established on land highly adapted to corn and grain growing, every farmer should plan to have a few trees of select apples, for the use of his own family. The amount of satisfaction derived from a small number of trees cannot be measured in dollars and cents as the fruit is made available at times of the year and in quantities in which it probably would not be purchased. A dozen good trees will produce much enjoyment without a noticeable expenditure of time or money.

The orchard site should be on high, clay ground if possible as the trees will last much longer than if set in black loam or poorly drained soil. The ground should be broken deep early in the fall and the trees carefully set out in rows about two rods apart. A great deal of importance should be attached to the source of the young trees as a large number of disappointments have resulted from trees which have not come true to variety. The safest way is to buy direct from a reliable nurseryman and insist that he give your order the careful attention that it deserves. In selecting the varieties, the aim should be to have one tree bearing at all times through the summer and as many winter apples as are needed. A good selection should include one Yellow Transparent, one Early Harvest, one Wealthy, one Maiden's Blush, several Grimes' Golden, and as many of the following as are needed or desired: White Pippin, Pewaukee, Vandever, Stark, Rhode Island Greening, Johnathan, Salome, Genet or any other of the tried varieties of winter apples.

To set out a small orchard requires but little time, but the value of the fruit in adding to the variety of the diet is difficult to overestimate and sufficient to repay all the outlay.

MONOLOGUE ON THE APPLE.

Pippins Were Some of Earliest Imports.
We bought the other day a small basket of Wealthy apples. The price paid was seventy-five cents, and although we cannot be sure that they were grown in Monroe county, circumstantial evidence points that they were, for all the big and fine ones were on the top, the true Monroe county style of picking, says Post Express.

They were delicious and there were just twenty-five of them, costly fruit for the apple belt and in season. So common has the apple become that it seems as if it had always been grown here. We know all about their productive qualities in the garden of Eden, probably those were the red-cheeked variety, like the Wealthy's.

First Apples Grown Here.

The first apples grown in this country were pippins, or if not the first, some of the earliest. Governor Endicott brought for his colony at Salem, seeds of apples, cherries, plums and some "tame turkeys." This was in 1629. In Wood's "New England Rarities," he says: "In 1639 J. had half a score of fair pippins from Governor's Island in Boston harbor," though he adds that these were the only apple or pear trees planted in that part of the country.

Earlier than this, however, there was at least one apple tree growing in New England at York, Maine, for in 1635 the "Angel Gabriel" was wrecked at Penaquid in the month of August. Her passengers and cargo were saved, and among the latter was an apple tree in a tub. This was finally planted at York, where till at least 1880 it was still living and in bearing.

In 1640 William Trask exchanges 250 acres of land in Salem for 500 apple trees of three years' growth from Governor Endicott's famous orchard. In 1671 Wood says in his "Rarities" that "the country is replenished with large and fair orchards."

Nova Scotia Apple Crop.

Deputy Consul General Eugene M. Lamb, of Halifax, writes as follows: The Nova Scotia apple crop for 1913 will be far below normal, cold wet weather at blossoming time and June frosts having inflicted much damage. Where the trees escaped they are receiving careful attention, cultivation and spraying being carried on to an extent surpassing that of any other year. Many motor sprays have been purchased by the fruit growers of Annapolis Valley, which are proving very satisfactory. The varieties of apples which promise best this season are Greenings, Fallwaters, Kings, Ribbons, and Starks, while Gravensteins and Baldwins will be very short. The apple yield in 1912 was 1,000,000 barrels, a much smaller crop than in 1911.

Broken Knees in Horses.

Written for Green's Fruit Grower by F. H. Sweet, Va.

The horse, when falling, naturally throws his knees forward, thus causing them to receive all the weight of the forward part of his body. Broken knees result. While this blemish may be slight or serious, according to circumstances, much depends upon the immediate treatment of the wounds. Washing thoroughly with warm water is the first thing to be done. Then ascertain whether the joint has been penetrated, that is to say, whether the capsular ligament containing the synovial fluid has been punctured or lacerated. The color of this fluid is yellowish and it is of a peculiar, transparent nature. Probing is the only certain way of dispelling all doubts, but as this aggravates the wounds, it should be resorted to only when absolutely necessary. Linseed meal poultices applied after the thorough cleansing of the wounds will prevent or materially abate inflammation.

The services of a skillful veterinary surgeon are required to close the wounds. In cases where the capsular ligament has been penetrated and the synovial fluid, or joint lubricant, continues to flow, the horse suffers much pain. High fever usually sets in and the animal may have to be killed. Prompt treatment is very important where the knees have been broken. Many otherwise seemingly perfect horses have slight scars on the knees. Where the skin only has been broken and no serious results are manifest, the hair can sometimes be made to grow over the scars by applying blistering ointment to them, but this should not be done until the wounds are thoroughly healed.

Mary had been greatly interested in watching the men in her grandfather's orchard putting bands around the fruit trees, and asked a great many questions. Some weeks later, when in the city with her mother, she noticed a gentleman with a mourning band around his sleeve. "Mamma," she asked, "what's to keep them from crawling up his other arm?"

A Large Profit Yielding Apple Region

IN Virginia, North Carolina, Georgia and Tennessee, thousands of acres of unexcelled apple lands, capable of returning enormous profits, can now be purchased at extremely low prices. These mountain cove lands of disintegrated rock, mineral and decayed plant formation (the greatest requisites for the production of the finest fruit) can be purchased

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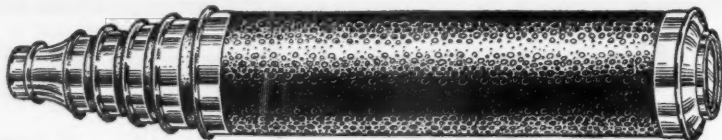
The large assortment of varieties, extremely low cost for land, the especially favored climate, the abundant rainfall, ample sunshine, excellent air drainage and the fact that 6 to 12 cents per box puts Southern fruit on the New York City market, is convincing evidence that this section excels all others as an apple and general fruit growing country. Virginia alone in 1912 produced over 1,200,000 barrels of apples.

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Lists of fruit lands for sale, our magazine, the "Southern Field", or booklets on the States of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee or Kentucky sent free on request.
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Green's Fruit Grower, Rochester, N. Y.

Christmas—Outside The Inn.
Written for Green's Fruit Grower.

With pleasure we mention the birthdays paternal,
Maternal, fraternal and others of kin;
With interest count forward the days intervening,
Then pleasant surprises we plan and begin.

Sweet, sweet these love-tokens, tho' small value
meaning,
And sacred, if donor be friend or be kin,
E'en treasured are they when faded and broken;
Ah, priceless the casket these relics within.

Gloria in excelsis to God, the All-Father,
Who gave this rare Birthday, outside of "the Inn!"
A charm, sweetness, halo makes sacred this, rather
Than all other birthdays, tho' grand mansion in.

All-limitless blessing, free, broad as the earth,
For weak ones and erring, was then ushered in,—
Christ's Natal Day! Hail it with joy, gifts, mirth!
"God with us," the lowly, outside of "the Inn." N. A. T.

The Giving of Gifts.

For parents who do not always put themselves in the places of their children, there is, perhaps, a lesson in this railway-car conversation reported by the New York Times:

"Were you sick yesterday?" asked the tall commuter as his neighbor settled into his accustomed seat.

"Well," said the neighbor, "I wasn't really sick. I had what my grandfather used to call 'a crick in my back,' but it disappeared about ten o'clock."

"And then," said the tall commuter, "you just hung around all day."

"No, I didn't; I really had a fine day," returned the ex-invalid. "I gave my little girl a present—a present there was no reason she should have got."

"You don't have to have a reason to give a child a present!" grumbled the tall commuter. "The child herself is reason enough."

"Nevertheless," said the other, "nine people out of ten have a reason for giving even a child a present. It is Christmas or it is Easter, or it is the child's birthday, or the child has been sick and you give it a present because it was decent enough to get 'well.' They are all legitimate reasons for giving a child presents, but I didn't resort to any of them."

"You see, her doll fell and fractured its face beyond hope of recognition. It had been a handsome doll in its day, and the howl Hope sent up as she gazed on the fragments of its smug waxen face would curdle your blood. Now the usual thing would have been to tell her how soon it will be Christmas, or that her birthday is the fifteenth of next month. My wife did both."

"Did she stop crying?" asked the tall commuter.

"Not exactly," said his friend; "and then I had my inspiration. I went right down to the village and bought her the most stylish thing in wax you ever laid eyes on."

"You did the handsome thing, I must admit," said the tall commuter, generously, "and I suppose the younger daughter was pleased."

"Pleased doesn't express it!" said the proud parent. "No other doll ever got such a reception. I wouldn't have missed it for a farm. Well, we're in the station."

"So we are," agreed the other. "Do you know, I think I'll bring my boy home a pair of roller skates to-night, instead of waiting for his birthday. No reason why all the good feeling should stay at your end of the block, is there?"

Feeding Birds in Winter.

Chester A. Reed, in giving a list of the forces, which are working toward the decrease of bird life, ranks them as follows: man, the elements, accidents, cats, other animals, birds of prey, and snakes. Fortunately man, who stands first on this list, can also do much to lessen the destruction wrought not only by himself, but also by other agencies, notably the elements, and cats. This article will be devoted to a discussion of the methods by which man can protect the birds from the elements during winter when this protection is most needed. At that season, many birds die from cold and starvation.

Since man has been in a large measure responsible for the great decrease in the number of birds, he should be willing to protect the ones that remain, and in some measure recompense them for the number he has destroyed.

There are also very strong practical reasons for this protection. In winter our trees are covered with thousands of dormant insects and eggs, which will in spring become active enemies of the farmer, if they are not destroyed sooner by the birds or some other agency.

The protection given the farmer by the birds is well shown in an experiment tried by Mr. Forebush. He placed suet and other food in an old neglected orchard one winter, and succeeded in attracting chickadees, nuthatches, woodpeckers, and creepers, which ate, in addition to the food provided, vast numbers of insects and their eggs. The next summer, this orchard and the one next to it were the only ones in the neighborhood which bore any fruit. The other trees were practically defoliated by the larvae of the canker-worm moth.

THE MAN BEHIND THE GUN.
Whether the gun is effective depends largely upon the man behind it. It is the same with nursery products. The man behind them, the man of character and good repute, adds much to the value of the trees and plants which he propagates and sells.

HEALTH'S BEST WAY—EAT APPLES EVERY DAY.

Not only apples, but eat peaches, cherries, pears, plums, strawberries, raspberries, grapes and all other fruits in their season. The acids of fruits tend to clear the system of impurities. Fruits are the healthiest and most natural foods for man. Fruits are also desired by horses, cows and other animals, but they should be allowed to ripen before being fed.

YOU GET WHAT YOU PAY FOR WHEN YOU BUY PLANTS, VINES AND TREES OF GREEN'S NURSERY CO. OF ROCHESTER, N. Y.

Rochester trees have long had the reputation for hardiness, vigor and early fruiting. The climate here is favorable for hardy and enduring trees. The soil near Rochester is such that at one time it was thought that this was about the only part of the country that could produce high grade trees.

HE OWNS THE FRUIT FARM STILL.

Though C. A. Green was compelled owing to the growth of his business to leave his Fruit Farm for the city of Rochester, he still owns it and has not thought of selling. He and his family spend many happy weeks on this farm each season and visit it often. Mr. Green's book, "How I Made the Old Farm Pay," gives a full account of the planting of berry fields, vineyards and orchards on an ordinary grain farm and how he made the old farm pay. Price postpaid twenty-five cents.

NORTHERN GROWN TREES.

Do not forget that Rochester, N. Y., is on the northern border of New York state. Northern grown trees have been found the most healthy, vigorous and productive. These northern grown trees will stand severe winters and severe freezing better than trees grown further south. The wood of our trees is thoroughly ripened, which is very important and which does not occur so uniformly on trees grown further south. If you want the advice of men who have had a lifelong experience in growing fruit write us and we will help you so far as we are able.

THE GIRL OF MY DREAMS.

There are all kinds of girls. The girl of my dreams aided me greatly in getting a start at Green's Fruit Farm, which I found run down and lacking in fertility. I could not have been so successful on this farm had it not been for this girl, who, as you suspect, is my wife. We should always give our wives credit for the assistance they give us on the farm or elsewhere and we should do all we can to make housework lighter. We can do this by providing the housewife with an ample supply of fresh picked fruits, such as the strawberry, raspberry, blackberry, currant, grape, peach, pear, apple, plum, cherry and quince. Whatever you do do not forget the girl of your dreams.

Keep your boys and girls on the farm by having a supply of strawberries, raspberries, blackberries, grapes, peaches, cherries, pears, plums, quinces, nut trees and other similar attractions. Interest the boys and girls in growing fruit for the home table. While fruit growing is the most profitable way of occupying the soil where the fruit is grown for sale, the greatest profit from fruit growing comes to the man who plants fruit for supplying his home table continually and abundantly.

YOU CANNOT AFFORD TO EXPERIMENT.

You must be sure when you buy plants, vines and trees that you are getting trees of good quality, true to name. The fact that our business has been steadily increasing for over thirty years should induce you to feel sure that you will be well served when you buy your trees of Green's Nursery Co. Remember that

much depends upon the grading of trees and that trees well graded are worth far more than trees carelessly or fraudulently graded. People who buy of us have learned by experience that Green's Nursery Co. are known far and wide as square dealers, selling fresh dug, high grade trees at low prices.

Our products are of high grade. We are in position to supply the highest class plants, vines and trees that cannot fail to give satisfaction to our patrons, who may be found in almost every hamlet, village and city in this country. We have four large nursery farms. One of these farms is composed of four separate farms joined into one, all particularly adapted to the production of high grade nursery stock.

THE DEMAND FOR FRUIT IS INCREASING.

People are learning each year that fruits are a wholesome and economical food. The demand for fruits has increased each year for the past fifty years, and will continue to increase notwithstanding the fact that this is a great fruit producing country, excelling all other countries. Millions of dollars' worth of fruit is imported to this country from foreign lands each year. If you want advice as to which fruits to plant, or what varieties, explain to us the character of your soil and we will do the best we can to advise you. There are thousands of villages in the state of New York and in every other state where there is no adequate supply of strawberries, raspberries, blackberries, currants, or of cherries, peaches, pears, apples, plums, and other hardy fruits. Why not look into this question and start in to supply your locality, which probably has to buy fruit hundreds of miles distant, paying express charges and commissions, whereas you might reap the reward by supplying your home market. To all beginners we advise starting in slowly, increasing your planting as you gain in experience.

Doing business with a good house is like making love to a widow. You can't overdo it.

DO YOU KNOW THAT—

Fruit growing is the most profitable method of occupying the soil.

Fruit growing tends to give to men long life and much enjoyment.

Fruits are the most natural and wholesome food known, and that fruit juices are a germicide, cleansing the entire digestive tract of germs of disease.

Sales of fruit keep money constantly jingling in your pocket. When I began fruit growing I sent out wagons with strawberries, which were followed soon after with raspberries and blackberries, then grapes, peaches, apples, pears, plums, quinces. There was something to be sold almost every day of the growing season that brought me in ready cash when I was in great need of it.

The planting of trees on the village lot or the farm adds to the salable value of that lot or farm many times more than the cost of the trees and the labor of planting them.

You can save your wife much labor and anxiety by planting upon your place a home supply of small and large fruits. Think of canned strawberries, raspberries, blackberries, peaches, pears, plums, quinces, baked apples and pears, fresh strawberries and raspberries just picked from the garden, and how much these fruits will do to supply the home table.

You can make the rural home attractive to your boys and girls and keep them on the farm by planting an abundant supply of small fruits and of fruit trees of various kinds.

You can make life far more enjoyable for yourself by surrounding your home with berry bushes, grape vines, with trees of the peach, plum, pear, cherry and quince. What is more enjoyable than seeing these beautiful fruits in blossom or beautifully tinted as they ripen.

Green's Nursery Co. is the largest nursery in the world dealing direct with their patrons. By buying your trees of us you save the middleman's profit. You save the expense that most nurseries incur in sending out tree agents who wander all over the country taking orders. This selling through agents is an expensive business, therefore those nurseries are compelled to charge you double the price that we charge.

A NATIONAL REPUTATION.

Having been interested in tree planting for a long lifetime and having supplied farmers, villagers and fruit growers all over this continent with trees for orchard planting during a period of more than 34 years, we have secured a national reputation for fair dealing. Our business has increased each year indicating that our pleased patrons have recommended us to others. This has led up to our receiving last year more orders than ever before for plants, trees and vines from people scattered over every state and territory on this continent. In one Pennsylvania village a man ordered trees of us many years ago. He was so well pleased with them he recommended us to his neighbors, thus now we have in this one village over thirty patrons who will buy no trees other than Green's trees.

Hilly farms are desirable for fruit growing. I have just bought a 100 acre farm on which there are many hills and slopes on which I expect to plant vineyards, berry fields and orchards. Even rocky fields that cannot be plowed may be planted to apple, pear, or cherry trees. The first few years a space of three or four feet around each tree should be cultivated with the hoe or pickaxe, inverting the sods and using the sods as a mulch to keep the grounds moist. Many of the most profitable orchards of this country are planted on such rocky fields. It is important that the trees should receive careful attention at least for the first few years.

QUALITY SERVICE.—What kind of service are you getting and what kind are you giving? We are all born to serve. Our success in life depends upon our serving others well, but do not expect good service at half price. By our method of selling trees direct to the planter without the expense of traveling agents we are able to sell a high grade of trees at nearly half the agent's price. But when some new nursery that you never have heard of offers 12 trees for \$1.00, do not expect that you are going to get good service for this impossible. Twelve good trees of any kind cannot be grown and sold for \$1.00. The man who offers you 12 trees for \$1.00 expects to send you 12 trees that are absolutely worthless, being the culls that most nurserymen would burn and not offer for sale at any price.

WHY?—Why do you like to see the name of Seth Thomas on a clock or watch? Why do we like to see the name of "Child's" on the window of a restaurant? The answer is because these names have earned a reputation over the country for fair dealing. Our C. A. Green by careful and painstaking efforts has secured the reputation of selling plants, trees and vines that will grow and will bear fruit? Such a reputation is worth more than farms or bank stock. When you deal with a firm of good standing you have reason to expect just treatment.

It never rains roses; when we want more roses we must plant more bushes.—George Eliot. Likewise it never rains fruit. If you want fruit you must plant vines or trees.

GREEN'S TREES HAVE GIVEN SATISFACTION TO A MULTITUDE OF PLANTERS FOR NEARLY HALF A CENTURY.—Our patrons are enjoying these fruits in every state in the union where they have helped to make home attractive and life enjoyable. There are over 400,000 people in this country who have purchased and planted our Green's trees upon their homes. When I consider how much I have done to beautify the earth and to make it fruitful and productive I cannot feel that I have lived in vain.

I have by skillful manipulation created a product valuable to myself and my patrons. I have endured this product (plants, vines and trees) with qualities which the planter desires and which he may confidently rely upon receiving when he favors me with his order.

To be able to buy such plants, vines and trees as I produce of superior quality is of as much value to the buyer as it is of value to me, the producer, for the purpose of finding a customer.

Green's Nursery Company
ROCHESTER, N. Y.

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Over a score of factories have rushed their surplus stock to The Manufacturers Outlet Co. of Buffalo for QUICK SALE at sacrifice prices.

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None of our goods are "seconds" or shelf-worn merchandise. No "left-overs" from sheriffs' or receivers' sales. All brand new, first-quality goods, and *guaranteed so*.

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These bargains number thousands.

They include almost everything one could want in Building Materials and things for the home.

If what you want is not mentioned on this page, just remember that only about one-fortieth of our Bargains are here shown.

Send for our latest Book, so as to have our complete, revised, up-to-date Bargain List. The Book is free.

Roofing—10,000 rolls best 1-ply rubber roofing, guaranteed five years, 89c. 10,000 rolls 1-ply rubber remnants, 59c; each roll containing 108 sq. ft., nails and cement free. This roofing is guaranteed to resist fire, water, snow, heat, cold and acid. Easy to lay. You don't need to hire a mechanic to do the job.

Paint—500 gallons of the paint that covers. Only \$1.06 per gallon when bought in five-gallon cans. Best quality barn paint 78c. This paint covers more square feet surface for surface per gallon than any other.

Brushes—5,000 paint and varnish brushes at cost Genuine Chinese bristle 2x2½ flat paint brush 11c.

Wall Board—50,000 feet genuine Buffalo Wall Board at \$2.35 per 100 square feet. Twice as cheap as lath and plaster, four times as easy to put on. Anybody can do the work. No waiting for it to dry before putting on. Never chips, cracks or checks like plastering. Fire-proof, sound-proof, rat-proof and mouse-proof. Warmer than lath and plaster. Unaffected by weather conditions.

Fencing—Don't miss this wire fencing sale.

50,000 rods of open hearth crimped steel wire fencing. The kind with patent knot. Heavily galvanized, won't peel or flake. Extra hardened line wires, always stiff and tight. A 10-wire 47-inch high field fence only 22c per rod. Heavy hog fence 17c per rod and other sizes at bargain prices.

Rubber Shingles—The latest thing in ready roofing. Made of wool felt and pure asphalt. Crates containing 100 sq. ft. with nails and cement, \$2.15.

Plumbing—Everything in the sanitary plumbing line—bath tubs, lavatories, closets and fittings. Get our complete plans for installing without the need of an experienced mechanic.

Bed Combination—Consisting of guaranteed iron bed, heavily enameled, vermin-proof all-iron spring and soft top mattress only \$8.75.

White Enameled Iron Bed—Made of the best welded steel tubing, full size \$3.45.

Rugs—The very best *seamless* Brussels rugs in one piece, size 6x9, \$5.75; 9x12, \$11.25.

Stock and Die Set—Armstrong pattern Stock and Die Set, will thread pipe from ½ inch to 1 inch, with half the effort needed on other styles, \$3.20.

Bench Vises—Heavy iron vises only \$2.39.

Saws—The Outlet Special, warranted, only 39c.

Agricultural Forges—For rivet heating and light repair work, \$4.05.

Anvils—Buffalo all-steel; all weights up to 200 pounds; per pound, 8½c.

Pianos—300 of the finest pianos made have been given us for quick sales. A Cabinet Grand only \$126.25.

Furs—A large over-stock of the latest styles in fur pieces have been turned over to us to sell quick. Only 100 pieces left.

Dining Table—Square oak extension, 42 inches wide, 6 feet long, \$5.10.

Chiffonier—Seasoned selected oak, finished in gloss golden oak, 3 large drawers, genuine French beveled mirror 12x20 inches, weight 105 lbs., our price \$5.25. Only 45 left.

Silverware—Several lines of the very best silverware manufactured are offered at prices that will save you money. Write at once, before the best patterns are sold.

Trunks and Bags—A complete line of travelers' supplies in our new book save you 50 per cent. Suit cases, bags and trunks.

Rubber Boots—The very best line of rubber boots manufactured, in every style. These boots will outlast others 2 to 1.

Harness—The *Quality* harness offered in our Book of Bargains is very fine, much better than the usual kind for buggy, wagon and farm.

Washing Machines—50 high-speed washers for power or hand. All top gears enclosed, easy to run and washes perfectly, only \$8.45.

Base Burners—Large 15-inch fire pot heater with all the latest improvements, well nicked, only \$24.75.

Cut Glass—For holiday gifts. Finest cutting. Sugar and Creamer, \$1.98. Seven-piece water set, \$5.50. Heavy 8-inch bowl, \$2.48.

Parlor Tables—Solid oak center tables with 24x24-inch top and turned legs, \$1.48.

Rockers—Beautiful upholstered Buffalo leather rockers with spring edge, 37 inches high, \$7.00.

This Special Sale Includes

Lumber, Millwork, Windows, Doors, Roofing (Tarred, Rubber, Corrugated Steel) Steel Brick Siding, Pipes and Fittings, Boilers, Hardware Supplies, Furniture, Rugs, Curtains, Washing Machines, Plumbing Outfits, Ladies' and Men's Rainproof Coats, Kitchen Utensils, Kitchen Cabinets, Milk Cans, Iron Wheels, Wickless Blue Flame Kerosene Oil Stoves.

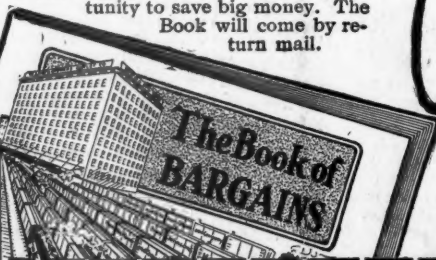
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